

AGING WORKERS IN CHANGING LABOR MARKETS AND CAREER LEARNING

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In many areas, the number of people transitioning to retirement is starting to outnumber the number of young people negotiating their way into the labor market. To sustain economic prosperity, these regions need to prolong the working lives of older workers. Maintaining older workers' earning power and employment until and past the traditional retirement age will depend simultaneously on strengthening the quality of jobs, and on supporting older workers' willingness and ability to engage in new career learning so they can keep up with occupational shifts and skill changes. One key challenge policymakers and institutions face in their attempts to address aging-related labor market challenges is the lack of historic examples available to guide decision making.

Using a generational transition lens, my dissertation examines the intersections of two global trends – unprecedented population aging and volatile labor markets – at a local level. It focuses on building the case for employability of older workers as a way to inform cross-sectoral policy planning and investments for the benefit of all generations. More specifically, the purpose of my study is to inform policymakers and institutions concerned with the provision of education and skills training for workers later in life as a means of promoting both successful generational transitions and sustainable tax bases.

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1.0 PROLOGUE

Growing up in a close-knit three-generation family, I got accustomed to the care, perspectives and guidance of the more experienced members of the family. I enjoyed and thrived in the company of family elders and so, when I started my career journey, I continued to seek out interactions with older professionals. Over the years, I have had the fortune to work with countless older colleagues. And unfortunately, I have seen many of them experiencing painful downturns in their careers, ending up professionally underutilized, disregarded or rejected. A 62-year-old Kathy, for example, once a high-ranking manager in a financial institution, is now – after almost a year of unemployment – happy to land a receptionist job making barely \$40,000 a year. Or a 65-year-old Bob who, just a few years ago, was one of the most important medical equipment trouble-shooters, managing emergencies in top hospitals across the country, is now trying to get by as a part-time customer service rep at a home improvement retail chain, making about \$16/hour. The more stories like these I hear, the harder time I have to understand why we let this happen.

I recognize that I was lucky to be born to a family where we appreciate older people as an incredible asset that benefits the whole group. Without knowing it, I experienced and continue to experience, through my family, the power of successful generational transitions where the well-being of descendant generations largely comes from thriving predecessor generations.

This study emerged from the tension between my seeing too many aging professionals struggling to maintain their careers and my not understanding why this is happening, especially now when many local labor markets see declines in the younger workforce. I think that we need to take better care of the aging workforce – if not for their benefit then for the benefit of the succeeding generations. Inspired by what I experienced through my family, I believe that improving older workers’ employment prospects creates important economic and social benefits for the society as a whole. If the employment opportunities of the largest cohort of earners continue to deteriorate, the employment prospects of the next generation may be compromised as well. The cost of labor market failure of one cohort has to be distributed among those more successful (Carnevale, Hanson, & Gulish, 2013; Eichhorst et al., 2013). If the struggling cohort happens to be the largest one, the costs are much harder to absorb. We need to acknowledge that late career shocks have significant consequences – emotional, health, economic – for individuals, families, communities and society as a whole (Munnell, Webb, & Chen, 2015) and therefore are worthwhile preventing.

Using a generational transition lens, my dissertation examines the intersections of two global trends – unprecedented population aging and volatile labor markets – at a local level. It focuses on building the case for employability of older workers as a way to inform cross-sectoral policy planning and investments for the benefit of all generations. More specifically, the purpose of my study is to inform policy analysts, policymakers and program managers concerned with the provision of education and skills training for workers later in life as a means of promoting both successful generational transitions and sustainable tax bases.

1.1 ORGANIZATION OF THE DISSERTATION

I chose to approach this research through three separate studies to better attend to the complexities involved in the topic. In accordance of the University of Pittsburgh School of Education's policies for PhD dissertations, all three studies look at a common research problem and share a common theoretical framework. Each of the three studies has a separate but coordinated literature review, conceptual framing, data, empirical analysis, and discussion of findings and policy implications.

The main argument of the dissertation rests on the assumption that in order to increase older worker retention in labor markets, people need be willing to work past the traditional retirement age, they need to be able to see good employment opportunities for themselves, and they need to have the right skills for these jobs.

The introductory chapter develops this argument by mapping the shifting demographic and employment trends from a global perspective. Each of the three studies explore a specific aspect of the main argument identified in the introductory chapter, in the context of a local labor market.

The first study addresses the need to better understand the current landscape of job opportunities for the older worker at the local level where career learning policies and interventions are typically enacted. Specifically, this study answers two research questions: Does the landscape of labor market opportunities in the Pittsburgh region support employability of older workers? and How do aging local professionals view their career future in the context of the local labor market?

The second study addresses the need to better understand how these aging workers are personally confronted by new labor market realities and what are their perspectives on learning

new careers. Specifically, this study answers this research question: How have previous learning and career experiences of aging workers in the Pittsburgh labor market shaped their current learning efforts and future learning plans?

The third study addresses the need to understand to what extent contemporary education and skills training policies facilitate career learning at later stages of people's professional lives. Specifically, this study answers this research question: To what degree are existing workforce development and adult education policies aligned with career learning needs of aging professionals?

I include a methodology section between the introductory chapter and the three studies to summarize the common methodological aspects that hold the dissertation together and to describe the geographic context of the research. I conclude the dissertation with an epilog to synthesize the common, broad recommendations for policy, practice and research that emerged from the three studies.

1.2 DEFINITION OF KEY TERMS

Older/Aging Workers/Professionals – I use this term broadly without strict age limits for two reasons: One, there is not one, generally agreed-upon definition of older worker; governments, affinity groups, data-producing agencies and researchers typically use four different age cutoffs 50, 55, 60 or 65. Second, I believe defining a precise age around the category of older workers is not necessary. Age cohort is a fluid construct and its boundaries may be more socially constructed than biologically determined.

Career Learning – I use this term to account for any engagement – formal, non-formal or informal – in learning and education with the purpose of retaining or improving employment and career prospects.

2.0 FRAMING CHAPTER: GLOBAL PERSPECTIVES

Separately, population aging and the globalization of labor markets have created troubling trends that are gaining momenta in local, national and international policy agendas. Combined, they present new urgencies typically framed as cost issues due to older people's decreased labor market participation and increased need for healthcare and other services.

The United Nations (2014) projects the global number of people over 60 will triple between 2000 and 2050. As population pyramids grow heavier at the top, governments are concerned about extending working lives of older workers as a way of lowering dependency costs and sustaining taxable capacities within their economies. Employers are confronted by an increased proportion of older workers in workplaces and potential skills gaps due to mass retirements or skills atrophy. Older people are encountering new realities such as retirement age changes, insufficiency of retirement savings and a changing landscape of job opportunities (Loretto, Vickerstaff, & White, 2007).

The fast and significant shifts in population dynamics have cost implications affecting all generations. Paying attention to the employability of older workers is now necessary to tackle rising dependency ratios and their implications to both sides of the revenue-expense equation. Employed older workers generate tax revenue and reduce the growing number of older dependents (Zaidi, Fuchs, & Marin, 2006). They also help the younger workers to bear the costs of social security benefits that children, elderly, poor and people with disabilities consume.

While some argue that prolonging working lives of older workers will crowd out younger workers from job opportunities, research shows that there is not only very weak competition for jobs, but more importantly a limited substitutability between the two age groups (Carnevale et al., 2013; Eichhorst et al., 2013; Samorodov, 1999).

Policy approaches to older worker employability focus primarily on labor market retention by eliminating mandatory retirement age or increasing the age of eligibility for retirement benefits. These interventions alone will not sustain the economic productivity of older workers in increasingly volatile labor markets. Such efforts would need to be accompanied by provisions supporting the development of market demand for knowledge and skills. Current systems – both of higher education and of on-the-job training – have, however, not yet adapted to support career learning of older workers. More importantly, the notion of significant skill upgrades at a late stage in one's professional life does not yet resonate well with older workers (Segrist, Tell, Byrd, & Perkins, 2007).

The purpose of this chapter is to provide a context for my dissertation. It presents the problem to be addressed and why it is important. I start by describing the current global context of population aging while drawing attention to cost concerns and the lack of substitutability between younger and older workers. Next, I explore changes in careers and employment patterns brought about by more volatile labor market dynamics. I look at the problematic intersection of workforce aging and vanishing employment stability and explore its implications on successful generational transitions. Next, I identify employability of older workers as a strategic concern for public policy and stipulate the need for better understanding of issues influencing career learning at later stages of people's professional lives. I conclude by identifying three specific areas of understanding to which my dissertation will contribute.

2.1 WORKFORCE AGING AND EMPLOYMENT TRENDS

The increased volatility of labor markets both domestically and internationally has reformulated the nature of many jobs, thus disrupting the traditional linearity and occupational consistency of careers. For example, today only approximately 50 percent of employment arrangements worldwide are in the form of salaried employment, and only about 25 percent of workers globally have a stable employment arrangement (International Labour Organization, 2015). New labor market dynamics are resulting in shorter job tenures, forcing individuals to more often revise their careers and/or consider jobs outside of their educational and training backgrounds (Carless & Arnup, 2011; Hess, Jepsen, & Dries, 2012a). Workers also need to adapt more frequently to shifts in in-demand skills such as new forms of computer literacies (Barclay, Stoltz, & Chung, 2011). Older workers, however, have been less successful in adjusting to the new employment patterns (Antonovics, 2012; A. Brown, Bimrose, Barnes, & Hughes, 2012; Kirsi LaPointe, 2013; Lyons, Ng, & Schweitzer, 2014; Patrickson & Ranzijn, 2013; Ronzio, 2012).

The scale and speed of worldwide population aging makes the issue of older workers' employability a new and critical economic concern. The public cost of economically inactive seniors is becoming unsustainably high (Rudawska, 2010). For example, in the U.S. the health costs only are estimated at an average of \$3,900 per year for those in the labor force, and an average of \$10,100 per year for those not in the labor force (Newhook, 2015). Current pension schemes generally rely on an average 25 percent of gross salary payroll tax. In 1990, there was one pensioner for five workers in the U.S. and 1.2 pensioners to five workers in Germany. By 2030, five American workers will need to support two pensioners, five German workers almost three (International Labour Organization, 2015). Current pipelines of young workers are not sufficient. In the older, more developed countries the share of population below 15 years of age

accounts for 24.6 percent while the population above 65 years of age accounts for 25.3 percent (United Nations, 2014). These statistics do not take in account adults 15 to 65 who cannot work due to disabilities.

In addition to the insufficient volume, the current pipeline of younger workers cannot easily substitute for the human and social capital skills of the aging workers (Dychtwald, Erickson, & Morison, 2004). Research suggests that, apart from nonmatching work experiences and skills, there is also a significant difference in preferences for sectors and occupations between the two age groups. For example, in the U.S.A., the three industries with the highest concentration of older workers are Transportation and Warehousing, Utilities, and Public Administration, while the top three sectors with the highest concentration of younger workers are Retail, Leisure and Hospitality, and Mining (U.S. Bureau of Labor Statistics, 2014). Therefore there is not only very weak competition for jobs, but more importantly a limited substitutability between the two age groups (Eichhorst et al., 2013; Samorodov, 1999).

Supporting career success of older workers is not a luxury occurring at the expense of younger workers (Carnevale et al., 2013; Eichhorst et al., 2013). Retaining older workers, and retaining them in good jobs, does not only serve the interests of older workers. It is also an economic and social security issue essential to successful generational succession. The question here is whether or not the labor market opportunities will allow or encourage the aging worker to continue working. Embedded in this question is the issue of older workers' interest and willingness to engage in career learning at later life (Findsen & Formosa, 2011; Handel, 2012). For example, in 2013 the share of students over the age of 50 enrolled in post-secondary and tertiary education was 6 percent in Australia, 4.1 percent in the U.S., 4 percent in U.K., 1.2 percent in Canada, and 0.5 percent in Germany. Given the volatility of labor markets, what will

happen to older worker employability if the changes in in-demand skills and knowledge are radical and require major investments in new learning? Will older workers make these investments to sustain their employment?

The following sections explore the issues just raised. I start by contextualizing aging as a global social and economic concern while drawing attention to two interrelated issues – how attention to employability of older workers is a cost curbing strategy, and also a strategy supporting successful generational transition. Next, I explore the changing dynamics of labor market opportunities and their implications for careers in general and for the career opportunities of older workers. Then, I turn attention to career learning and its troubling patterns among older workers, while considering the role of public policy in this matter. I conclude by illustrating the ways my study intends to contribute to the understanding of policy issues at the nexus of population aging, labor market volatility and career learning of older workers.

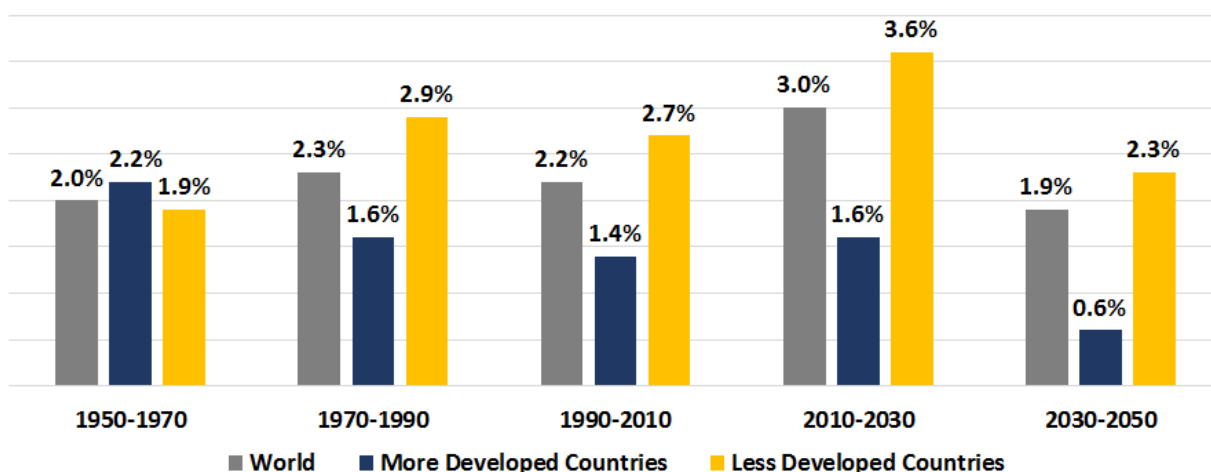
2.1.1 The Population is Rapidly Aging and the Older Live Longer

Development works. It also has significant consequences that cannot be ignored. Today's demographers present powerful statistics on global population aging. They project that the number of people 60 years or older will triple between 2000 and 2050, reaching a total of 2 out of 9.5 billion. The magnitude of aging is only a part of the issue. The rapidly accelerating rate of aging is equally alarming. The global share of people over 60 accounted for 8 percent in 1950, 10 percent in 2000, and is projected to reach 21 percent in 2050 (United Nations, 2014).

Aging is a world-wide problem. Many people know that higher income countries are older, having experienced declines in fertility and mortality rates since the early 1900s. They may be surprised, however, to learn that most of the low and middle-income countries are aging

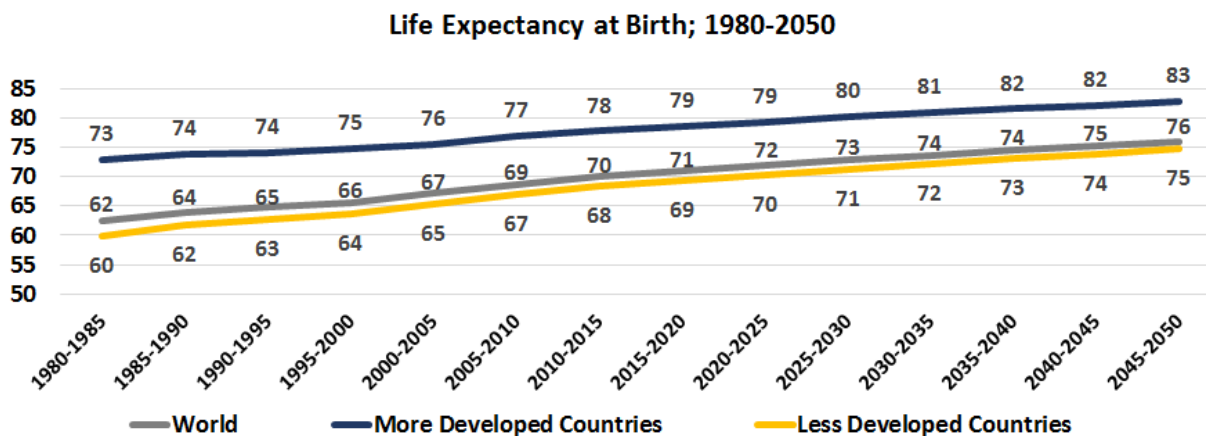
even faster (see Figures 1 and 2). Many of these countries experienced in just over one generation the same declines in fertility and mortality rates that the developed world achieved since the beginning of the 20th century (Powell, 2013). In fact, the World Health Organization (2015) predicts that by 2050, 80 percent of older people will live in low and middle-income countries of the Global South.

Figure 1: Average Annual Growth Rate of Population Aged 60+



Data Source: United Nations, 2014.

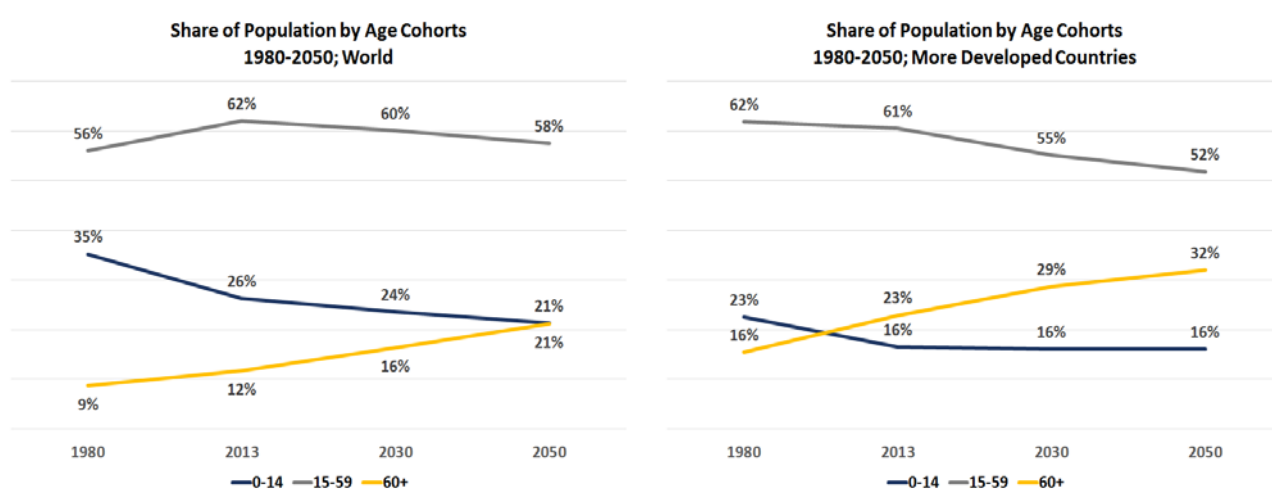
Figure 2: Life Expectancy at Birth; 1980-2050



Data Source: United Nations, 2014.

What makes the issue of aging even more complex is its lack of precedent. Never before in human history, as we know it, were there so many older people. More importantly, never before did the share of older people surpass the share of population below the age of 14. While higher income countries are already experiencing this demographic shift, the rest of the world is expected to catch up by 2050 (see Figure 3).

Figure 3: Share of Population by Age Cohorts



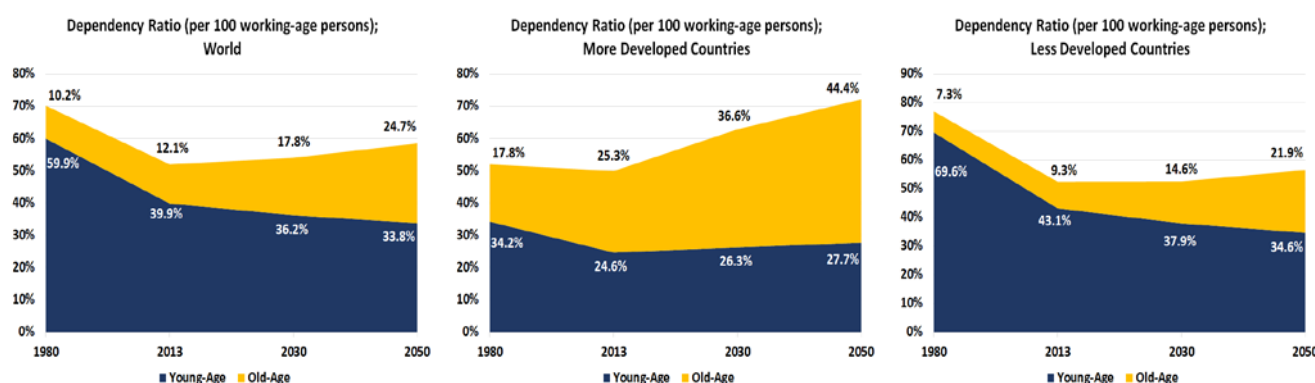
Data Source: United Nations, 2014.

2.1.2 Cost Drives Attention to Employability of Older People

Despite the complexity of population aging, the biggest concern that governments worldwide have with respect to aging is the massive scale of its cost. Dependency ratios are one of the measures economists use to forecast financial implications of population changes; they express the share of people 14 years or younger to the working age population (young-age ratio) and the share of people 65 years or older to the working age population (old-age ratio). The rapidly growing old-age dependency ratios (see Figure 4) are signaling major issues for pension policies, especially in the more developed countries (Rudawska, 2010). In the less developed countries the

decline in young-age dependency ratios significantly offsets both the raising old-age ratios and total dependency rates. In the more developed countries, however, the young-age dependency ratio is already very low and the rapid aging is projected to rise the total dependency rate from 52 percent in 1980 to 72percent in 2050 (Herrmann, 2014; United Nations, 2014).

Figure 4: Dependency Ratios



Data Source: United Nations, 2014.

Shifting dependency ratios and public expenditures related to aging are of increasing concern¹ across governments worldwide. Not all concerned countries have adopted significant policy measures to address the issue. In fact 43 percent of countries with concerns about aging have not altered their pension or working age policies in the past five years (see Table 1). The oldest countries: Germany, Korea and Japan, however, seem to be the most active in implementing reforms of pension systems and changes to statutory retirement age; South Asian countries, countries in Oceania and several countries in South America have been focusing mainly on pension system reforms (United Nations, 2015).

¹ Per United Nations, this metric indicates government's level of concern regarding the current size of the working-age population in relation to the domestic labor market or in relation to the size of the dependent populations. The organization recognize three levels of concerns – major concern, minor concern and not a concern. www.esa.un.org/poppolicy/.../Definitions_Policy_Variables.pdf

Table 1: Level of Concern about Aging and Policy Action

Region	Total Concerned Countries	No Measures Taken	Changes to Statutory Retirement Age	Reforms of Pension Systems	Both Measures
Africa	40	63%	5%	23%	10%
Asia	45	40%	7%	33%	20%
Europe	41	15%	15%	15%	56%
Latin America & Caribbean	33	45%	6%	27%	21%
Northern America	2	100%	0%	0%	0%
Oceania	11	73%	0%	18%	9%
Grand Total	172	43%	8%	24%	26%

Data Source: United Nations, 2015

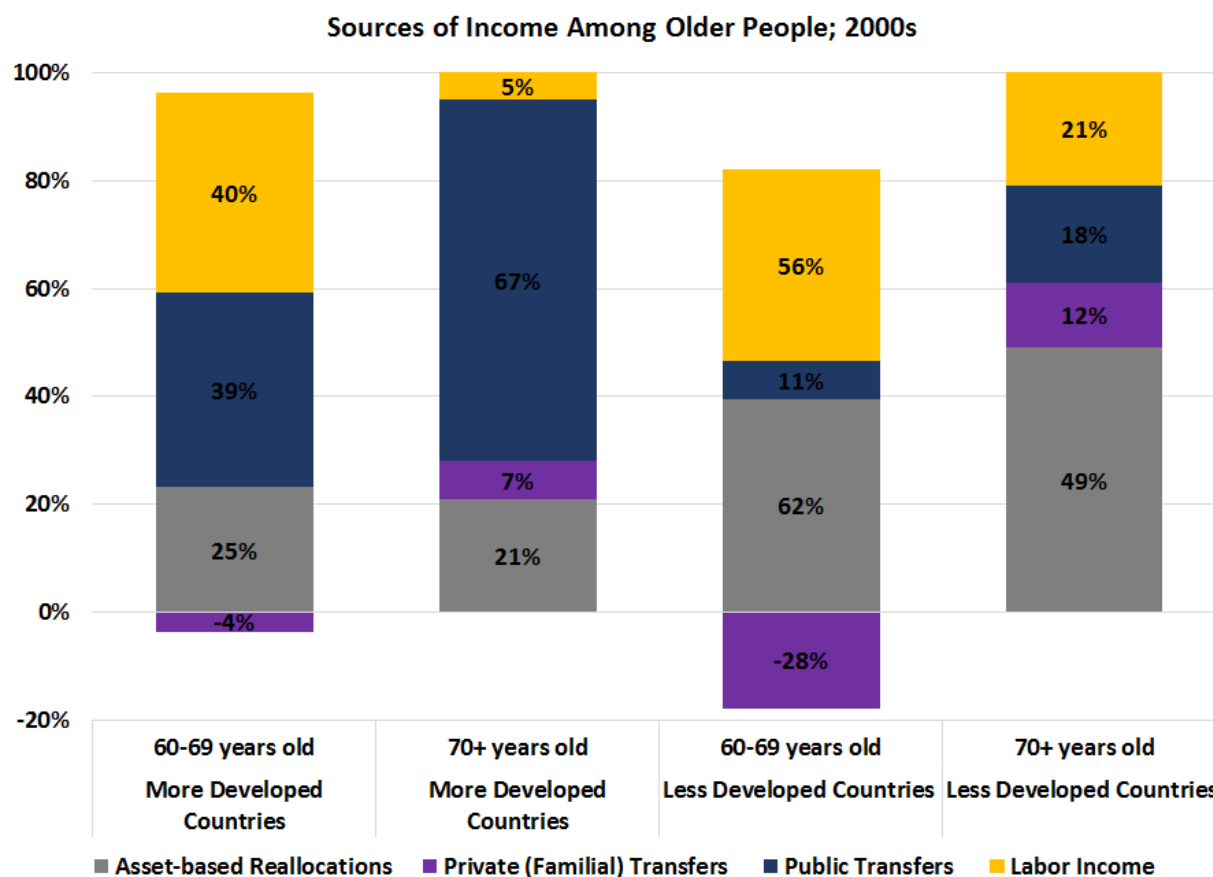
This summary of aging-focused policy making suggests that sustaining economic activity of older people is a priority. As a cohort, older people are less economically productive. They tend to exit labor markets and thus lower both tax receipts and talent supply, they are more likely to spend than save, and they more heavily utilize pension and healthcare systems (Anderson & Hussey, 2000; Bloom et al., 2014).

People generally rely on four sources of income: wages, assets, family contributions, and public subsidies. Worldwide, as people age, the sources of income change dramatically (see Figure 5). In less developed countries, the majority of the 60-69 years olds' income comes from wages (56 percent) and assets (62 percent). Only 11percent comes from public programs. This cohort also transfers a substantial investment of 28 percent of their income to their families. The cohort of 70 and older, on the other hand, generates only 21 percent of their income through wages, while using social security systems for 18 percent of their income, and their families for 12 percent of their income.

In the more developed countries with substantial social security systems, the sources of income are less diversified. Transfers of funds among family members and use of private assets account for the smallest sources of income and the reliance on social security systems is much

stronger. It is also significantly higher for the older group. For the 60-69 years old cohort, wages and public transfers account for roughly equal portions (40 percent). For the 70+ cohort income through wages decreases to 5 percent while income through public subsidies increases to 67 percent (United Nations, 2014).

Figure 5: Sources of Income Among Older People; 2000s



For both regions, the striking difference in economic activity between the two age cohorts justifies the rising interest in prolonging the employability of older people (Bloom et al., 2014; Denton & Spencer, 2009; Rudawska, 2010). Both cohorts are rapidly growing and the current labor force participation rate among the 65 and more years old is only 8 percent in the older more developed regions (United Nations, 2013). Here again, however, effective policy-making seems

to be hindered by a) the lack of precedent of the mass aging trend and b) a lack of a thorough understanding of the complexities involved in older workers' decision-making about their labor market participation around or past the traditional retirement age.

Research indicates that current older workers in the developed countries negotiate their exit from labor markets differently than the previous generation (Brewington & Nassar-McMillan, 2000; Dychtwald et al., 2004; Falkenstein, Möller, & Staudinger, 2011; Ilmarinen, 2001; Stevens-Roseman, 2008). We have, however, a limited understanding of how issues like career goals, economic situation, health (along with family obligations), and more importantly, access to job opportunities, factor into decision-making regarding retirement and post-retirement working activities. What further complicates policy-making to enable an aging workforce to work past retirement age, is the growing unpredictability of global labor markets and their temporal and spatial needs for skills and knowledge. In other words, to motivate those who do not need to work past retirement age, or to support those who need to, it may be helpful to know what jobs and skills will be in demand and where. Later I explore some of the difficulties in forming meaningful predictions of employment opportunities.

2.1.3 Who benefits from Older Worker Employability

Due to the magnitude of global aging, relevant policy debates are typically grounded in cost concerns. In these debates, aging and older people are often problematized, rather than looked at as a source of opportunities. Older people tend to be portrayed as a burden to public resources as opposed to contributors to workforce and civic engagement, and as a problem to be dealt with as opposed to a repository of knowledge and solutions (Beard et al., 2011; Findsen & Formosa, 2011). Consequently, issues of equity across generations arise. As aging is typically presented as

a primarily economic issue, the labor market is often considered the key platform where the different interests of younger and older workers manifest.

Governments used to protect the interests of younger and older workers in the labor market with two key instruments – pension systems and mandatory retirement age. Pension systems rely on principles of solidarity among the generations. Those participating in the labor market contribute a share of their gross salary toward the income of those retired in exchange for a promise that the next generation will do the same. Retirement age provisions regulate the labor supply by encouraging older workers to exit labor markets with the expectation of freeing job opportunities for younger workers (Samorodov, 1999).

Workforce aging challenges both these provisions. With respect to pension schemes, the solidarity principle is becoming unachievable (Rudawska, 2010). This issue is the hallmark of the population aging concerns. The large cohort of older workers who dutifully contributed to the pension of the previous generation will be dependent on the contributions of a much smaller younger generation. The younger generation will be expected to assume greater financial responsibility for the previous generation. In the absence of new pension systems taking into account the current population dynamics, raising the retirement age has been used to prolong economic activity of older workers and to delay their claims against the pension systems (International Labour Organization, 2014).

Retirement age policies, however, seem to be a somewhat controversial tool creating a perception of a tension between generations. The traditional philosophy behind this policy is to regulate the supply of older workers to ensure sufficient employment opportunities for younger cohorts (Samorodov, 1999). The assumption here was older workers crowd out younger ones who then fail to enter the labor markets and/or struggle to sustain employment. The post-Great

Recession persistent double-digit youth unemployment rates fueled this perspective. Recent research commissioned by the European Union, however, demonstrated instead that “the early retirement of older workers is neither beneficial nor necessary to promote young people’s entry into the labor market” (Eichhorst et al., 2013, p.8). This conclusion resonated with other research claiming that there is limited substitution between younger and older workers due to differing skillsets, levels of work experiences and preferences for occupations and industry sectors (Garibaldi & Taddei, 2013; Hamermesh, 1999; Mérette, 2007). For example, in the U.S.A. the highest share of younger workers is in Food preparation and serving occupations, followed by Farming, fishing, and forestry occupations, and Computer and mathematical occupations. The highest share of older workers, on the other hand, is in Architecture and engineering occupations, Management occupations, and Building and grounds cleaning and maintenance occupations (U.S. Bureau of Labor Statistics, 2014). In addition, labor market data suggest that even if older worker retire later than expected, they will, nonetheless, create substantially more openings for the younger generation than in the past. In the U.S. for example, 18 percent of jobs openings (totaling eight million) were created by retirements in the 1990s. In the 2010s, retirements will account for 28 percent of jobs openings (totaling 14 million) (Carnevale et al., 2013).

Retaining older workers in the labor markets has its support in the estimated economic consequences of shrinking workforce and growing dependency ratios (Cummins, Kunkel, & Walker, 2015; Vettori, 2010). Here prolonging employability of the aging workforce is justified as beneficial across generations because employed older workers (along with the younger workers) continue to co-finance, not charge pension systems (Eichhorst et al., 2013; Rudawska, 2010; Vettori, 2010). Less consensus (and research) exist around the issue that older worker should be actively retained in the labor markets because they complement and extend (rather

than duplicate) the skills and work experiences of younger workers thus enriching the labor pool, and because they foster knowledge retention and generational transitions in workplace (Dychtwald et al., 2004).

Nonetheless, retaining older workers in the labor market seems to be the preferred policy direction in most aging countries (Vettori, 2010) as the alternative – that is replacing older workers with young ones – can be less accessible. For example, in many aging countries the pipeline of younger workers is not sufficient to easily substitute for the sizable older cohort (and sourcing new talent through immigration is a complex and often controversial political issue). In addition, attempts to equip the younger generation with the older workers' skills and knowledge accumulated throughout the life-span could be quite costly. For example, the 2012 OECD's Survey of Adult Skills (PIAAC) indicated that 42 percent of those nearing retirement in the U.S. scored at level 4 or 5 on a five-level scale of literacy skills. In contrast, only 28 percent of the entering the labor market archived the same results (Schleicher, 2013).

The rest of this chapter focuses primarily on employability of older workers as a means of labor force retention and successful generational transitions. Improving older workers' employment prospects can create important economic and social benefits for the society as a whole without hindering employment prospects of younger generations (Carnevale et al., 2013; Eichhorst et al., 2013). For example, employed older workers increase tax capabilities of states which can be used to support education of the younger generation. Similarly, pressure on earning capacities of younger workers contributing to pension systems is lower if older workers continue to be contributors, not consumers, of these systems.

2.2 THE CHANGING NATURE OF JOBS AND LABOR MARKETS

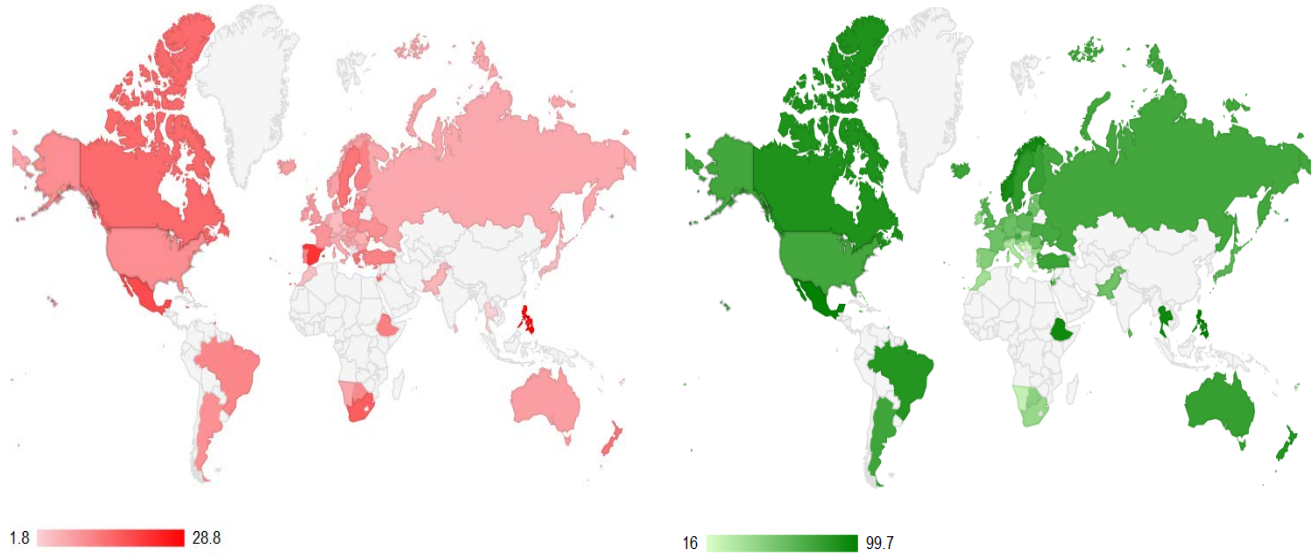
Over the last decades new trends such as de-industrialization, de-unionization, deregulation of markets, growing trade with lower-wage economies, and the emergence of information and communication technology, have changed dramatically the character of jobs, the composition of labor markets and the nature of workplaces (Handel, 2012). Today's global marketplace is characterized by interdependent national economies supported by technological advances with rapid and fluid exchanges of labor, capital, and know-how. According to the International Labour Organization (2015), one out of five workers is estimated to work in global supply chains. These are networks of companies where each handles a different part of product production or service provision based on its specific expertise. In this model, individual parts of the supply chain can be easily replaced by a new supplier who offers a better price or more competitive product or service. Labor economists suggest that these new powerful yet unpredictable linkages of economic dynamics worldwide render local labor markets structurally unstable and geographically unbounded. This forces workers to engage more frequently in job changes (Amundson, 2005; Bertola, Blau, & Kahn, 2007; Hess, Jepsen, & Dries, 2012b).

The maps below (see Figure 6) illustrate the issues with job stability worldwide. For example, workers in the Philippines face a 29 percent probability of becoming unemployed within a year but a 99 percent probability of finding a job within a year. Workers in Spain have to cope with a 22 percent probability of losing a job and only a 49 percent probability of finding a new one within a year. In North America, the probability of becoming unemployed within a year is 11 percent in the U.S. and 15 percent in Canada, and the probability of reentering employment is 74 percent in the U.S. and 89 percent in Canada (International Labour Organization, 2015).

Figure 6: Job Stability

Probability of a worker to become unemployed within a year (in per cent)

Probability of a job seekers to find a job within a year (in per cent)

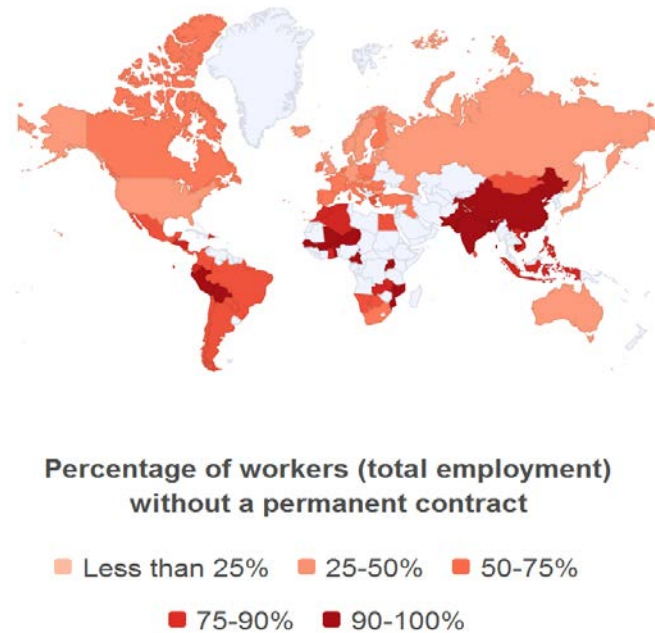


Source: International Labour Organization, 2015 (copied with permission)

Shifting employment relationships are also embedded in the issue of job stability. It is important to note that wage and salaried employment is not a norm in current labor markets. It accounts for approximately only 50 percent of employment arrangements worldwide and only 20 percent of employment in the less developed regions. Full-time employment is even scarcer; 55 percent of today's wage and salaried employment is in either part-time or temporary forms (International Labour Organization, 2015).

Figure 7 illustrates the level of unstable employment. For example, 90 percent or more workers in China and India work without a permanent contract. In Brazil the number of temporary workers ranges between 50 percent-75 percent. About 25 percent to 50 percent of workers in Canada or France, and less than 25 percent of workers in the U.S. or Australia work without a permanent contract.

Figure 7: Employment Arrangements



Source: International Labour Organization, 2015 (copied with permission)

2.2.1 Characteristics of work and meaning of careers are changing

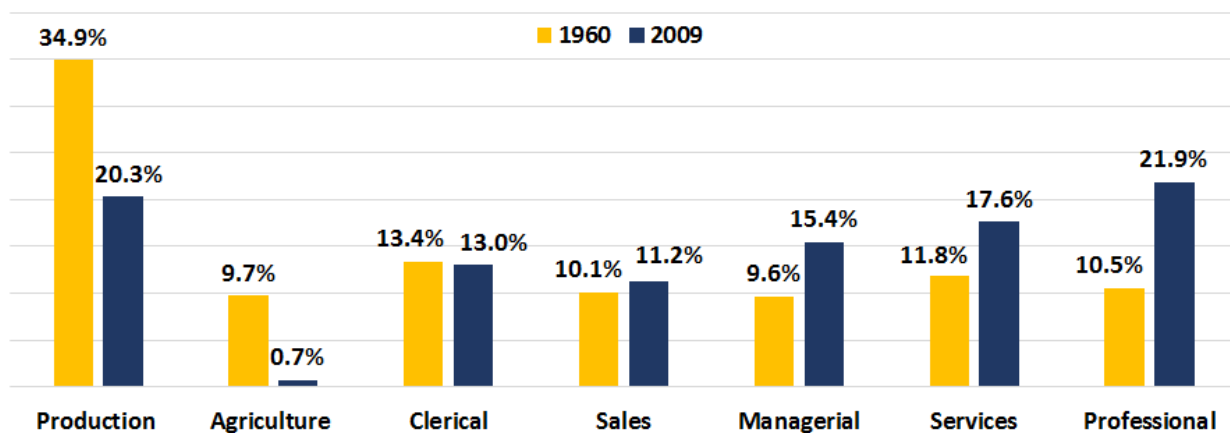
Economic globalization does not just alter the composition and stability of local labor markets. It significantly reformulates the nature of work and the meaning of careers (Powell, 2013). It also creates new demands for post-secondary education and lifelong access to learning (Yang, Schneller, & Roche, 2015). The traditional life course expectations that neatly tie education to occupational choices persisting throughout the lifespan to the retirement phase no longer reflect the character of labor markets (McKelvey, 2009). Workplaces are being increasingly destabilized by employers striving for stronger competitiveness through greater flexibility, resulting in a lack of long-term predictability for both occupational demand and the structure of organizations (Liu, Englar-Carlson, & Minichiello, 2012). Not only frequent job changes but also career changes are

becoming more common. A recent study by a group of Australian researchers suggested that 15 percent of workers in Australia changed their careers within the previous year (Carless & Arnup, 2011). The study also argues the motivation to undergo a career change decreases with age. The question then is what happens when occupations held by aging professionals become redundant but their ability, interest or learning opportunities to vocationally reinvent themselves is limited. Failure to adapt to a changing job market due to age is not only an issue of great social concern, but also of significant economic consequence, given the size of the aging workforce.

Up until relatively recently and especially for the aging workers, the common narratives of work and careers were rooted in a patterned system through which people organized their professional activities between basic education and retirement. In general, this system revolved around normative linkages across education, occupational choice and a life-long career trajectory expected to trend upwards due to accumulation of new skills and experience (Lyons et al., 2014). Personal agency and resistance to traditional career models were certainly available to workers in this system, however, the organization of jobs and the nature of workplaces largely restricted the availability of alternative career opportunities in the traditional labor markets (McKelvey, 2009). For example, little consideration to life-work balance issues in the past caused women with children to delay entry to the labor market or forgo certain opportunities for career advancement (Lyons et al., 2014). Essentially, the economic and socio-political arrangements of modern labor markets promoted linear careers in which frequent occupational changes were not expected of prime age workers. A consistent career track and an accumulation of industry- and occupation-specific expertise was much more likely to be rewarded by professional advancement and earnings than multiple, short-tenured careers in different fields (Hess et al., 2012a; Higgins, 2001; Lyons et al., 2014).

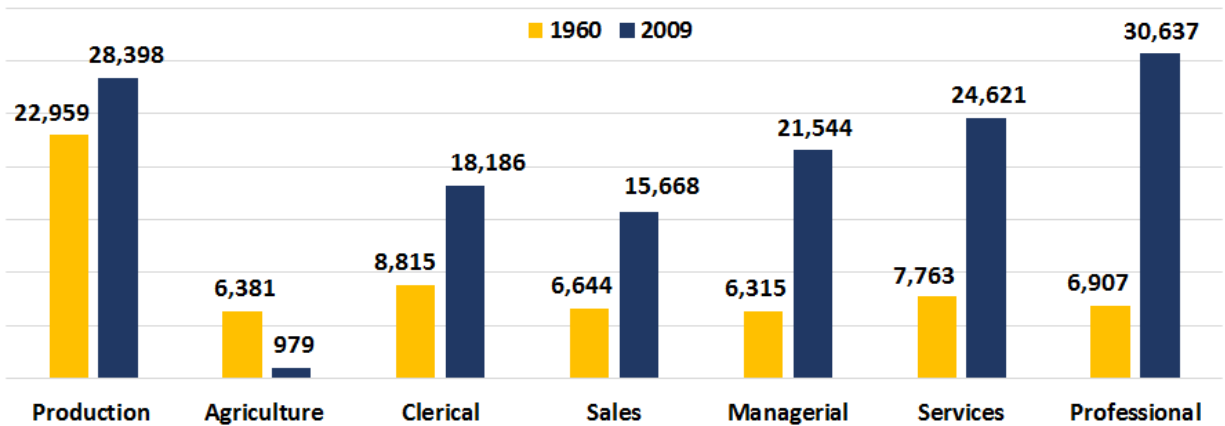
Post-modern, globalization-induced labor market dynamics, however, started to disrupt traditional career trajectories, especially in the last three decades. Today's labor markets demand broader career mobility (Barclay, 2011) and make notions of vocational stability and the irreversibility of vocational choice more and more irrelevant (Carless & Arnup, 2011). The disappearance of middle-class jobs and the consequent diversification of jobs across the low-high wage spectrum (Elsby, Hobijn, Şahin, & Katz, 2010; Handel, 2012) is one of the reasons behind this shift in career patterns. For example, production jobs decreased by 15 percentage points between 1960 and 2010 in the U.S. while service jobs increased by 6 percentage points and professional jobs by 14 percentage points (see Figures 8 and 9). Production jobs by default earned much more than service jobs. They were more likely to be supported by clear pre-employment and on-the-job training.

Figure 8: Shift in Occupational Shares; USA 1960-2009



Data Source: The U.S. Bureau of Labor Statistics, 2010

Figure 9: Shift in Occupational Composition (by jobs in thousands); USA 1960-2009



Data Source: The U.S. Bureau of Labor Statistics, 2010

Two reasons are typically used to explain the significant shifts in the occupational compositions of labor markets. First, offshoring or replacement of human talent by technology eliminated these jobs. Many traditional careers disappeared as well, forcing displaced workers to find new occupational pathways (Russell, 2011). Second, major shifts were generated by the growth of information and communication technology. Even the jobs that remain do not rely on education and training acquired in the past. Most blue-collar jobs now are infused with new technologies. Workers are expected to continuously upgrade their expertise, increasingly more often across traditional disciplinary boundaries (Yang et al., 2015). For example, operating engineers installing air-conditioning systems in a commercial building can't rely on paper blueprints anymore, but need to know how to use complex 3-D modeling software. Similarly, workers in warehouses now have to process orders transmitted electronically, using sophisticated inventory databases and computerized, robot-operated forklifts.

The changed social contract between employers and workers is also a factor in occupational stability. Traditional social contract between employers and workers emerged in the developed world in the first half of 20th century through wage controls and the provision of non-taxable health and retirement benefits. It offered social protection to families through employers in exchange for loyalty (that is low turnover). Due to volatile markets, however, employers are no longer willing to invest in long term relationships with workers, leaving many institutions without much in the way of valuable organizational memory (Brennan & Johnson, 2004; Garibaldi & Taddei, 2013; International Labour Organization, 2014; Kalleberg, Reskin, & Hudson, 2000). With radical de-unionization and the disappearance of employment benefits such as retirement or healthcare contributions, as well as the more frequent restructuring of workplaces, workers have fewer economic and moral incentives to invest in the development of company-specific careers (Ball, 2009).

2.2.2 New labor market realities are unfavorable to the aging worker

Economic globalization has brought about significant changes to the structure, stability and predictability of local and global labor markets, creating very different life course expectations for workers (Powell, 2013). The increasingly frequent shifts of skills demanded by employers are confirming predictions from the end of the 20th century – the notion of a job for life has become nonsense and the notion of a career for life is in serious doubt. The only things left are the notions of employability for life on one side (Ball, 2009), and of employment insecurity on the other side (Mughan, Bean, & McAllister, 2003; Segrist et al., 2007).

Not all people, however, have been affected in the same way. Older workers in developed economies are the most confronted by these new realities (McKelvey, 2009; Powell, 2013). For

example, older workers in the U.S.A. and other developed countries have participated the longest in the traditional system of a homogeneous, upwardly trending careers built around an occupational choice made in their young adulthood. They had the most opportunity to realize meritocratic-based continuity and protection for themselves in a workplace (Ball, 2009). They have experienced the greatest possibilities for achieving status and prestige through their occupational position in the labor market (Lyons et al., 2014; Schoon, Martin, & Ross, 2007; Thompson & Subich, 2006). And they have negotiated their entry and progress in the labor market under a more supportive system of education and employment policies that socialized them into career behaviors delineating education, work and retirement by specific age milestones (Tyack & Cuban, 1995).

Research evidences that younger cohorts of workers are better positioned to occupationally reinvent themselves in response to shifts in employment patterns. Older workers are believed to be less successful in finding new jobs than their younger counterparts, despite their generally stronger work ethics and abilities to manage greater complexities. Researchers attribute this to several influences: 1) age biases or ageism as some employers perceive higher age as correlated with lower performance or a higher risk of employee turnover (Katz & Calasanti, 2015; Patrickson & Ranzijn, 2013; Rothenberg & Gardner, 2011; Van Solinge & Henkens, 2014); and 2) older workers without a job, and especially if their unemployment is prolonged, tend to become uncertain about the current value of their skill and struggle to convince hiring employers about their past experiences being a good fit for the open jobs (Antonovics, 2012; Cummins et al., 2015; Rothstein, Aaronson, & Kahn, 2011). In addition, most older workers acquired their education and training long ago; therefore, their credentials may be seen as obsolete, their learning capacity as diminished, and their vocational identity as

narrowly constructed (Chen, Moon, & Merriam, 2008; Patterson & Paulson, 2015). Complex life demands on older workers such as health issues or taking care of elderly parents or spouses may also complicate or prevent radical career changes (Lyons et al., 2014).

As a result, studies show that job stability for older workers has decreased despite the fact that they tend to have stronger ethics and more complex work skills (Weber & Luzzi, 2013). These job losses are significantly more likely to result in long-term unemployment (Chan & Stevens, 2001). They are at a greater risk of skill atrophy, reduced earnings and loss of firm-specific human capital (Carnevale et al., 2013).

One thing that is largely ignored in the research literature is the interest, willingness and courage of aging workers to undergo significant career shifts in the last phase of their professional lives. Older workers are more likely to perceive the current labor markets as unprecedentedly competitive, unprotected and unpredictable. With these perceptions, the expected remainder of their employment tenure, and frequent experiences of ageism, older workers are often discouraged from altering their careers through education and training to fit the new labor market expectations (Barclay et al., 2011; S.-J. Kim, 2013; Ronzio, 2012; Segrist et al., 2007). In other words, they may doubt the effectiveness of their investments (financial and emotional) in redefining their professional focus at later stages of their lives.

Research on career changes suggests that a successful transition into a new occupation typically requires new training (Berger & D'Ascoli, 2012; Hess et al., 2012a; Peake & McDowell, 2012). Thus retaining the necessary economic prosperity of aging workers whose occupations are no longer in demand may be difficult without investment in additional skills and knowledge development. Current policies aimed at older worker employability – the abolishment of mandatory retirement age, for example – are aided by workers' understanding of incentives to

work throughout one's lifetime as social security systems do not guarantee sufficient levels of income (Rudawska, 2010). Incentives to continue to invest in new careers and skills past the prime age, however, do not seem to have been established yet.

2.3 AGING WORKERS' INVESTMENT IN CAREER LEARNING

Traditionally, the responsibility for career learning and new skill development in response to changing demand was divided among three parties: employers, individuals and the state. In the past, this responsibility was embedded in the social contract and each party was expected to contribute to new learning and training in proportions reflecting the benefits they gained (Humphries, 2006).

The 21st century job markets expect all individuals to engage in lifelong learning to keep up with rapid technological changes and frequent shifts in skills in demand (Brine, 2006; Findsen & Formosa, 2011; Segrist et al., 2007). Older workers, however, have been less active than their younger counterparts in investing in career-related training and education (Knipprath & De Rick, 2014). For example, in the U.S. only 4.1 percent of all the students enrolled in post-secondary and tertiary education are 50 or older. The highest share of older learners is in graduate programs (see Table 2).

Table 2: Share of Older Students Enrolled in Post-Secondary and Tertiary Education in % of total enrollment

Country	Age Cohort	Post-secondary	Short-term tertiary	Bachelor's	Master's	Doctoral	Total Post-secondary and Tertiary
Australia	50-59	13.1%	8.3%	2.1%	5.1%	9.7%	5.3%
	60+	3.5%	1.7%	0.5%	1.1%	3.9%	1.3%
Canada	50-59	<i>no data</i>	1.0%	0.9%	3.8%	4.6%	1.4%
	60+	<i>no data</i>	0.1%	0.2%	0.5%	1.0%	0.2%
United Kingdom	50-59	<i>no data</i>	7.2%	1.4%	4.9%	5.6%	3.0%
	60+	<i>no data</i>	3.4%	0.5%	0.8%	1.8%	1.0%
United States	50-59	5.4%	3.8%	2.1%	6.0%	6.5%	3.4%
	60+	1.3%	0.6%	0.7%	1.0%	1.4%	0.7%

Data Source: Organisation for Economic Co-operation and Development, 2016.

Data from the 2012 the Organisation for Economic Co-operation and Development's Program for the International Assessment of Adult Competencies (PIAAC) indicate that in the U.S., about 39 percent of those 55-65 years old pursue either formal or informal learning for job related purposes (Cummins et al., 2015). These data do not tell us anything about the intensity or depth of career learning of those 55+ years old. Comparing to formal education statistics above (see Table 2), however, the PIAAC data suggest that there may be a much higher prevalence of non-formal than formal learning among the older populations.

The low participation of older cohorts in formal learning is not a new trend. In fact, research claims that in comparison to previous generations, today's older people are much more active learners (Findsen & Formosa, 2011). In the U.S., for example, the share of older students (50 and over) enrolled in formal post-secondary and tertiary education rose from 3.6 percent (approximately 744,000 students) in 2010 to 4.1 percent (approximately 874,000 students) in 2013 (Organisation for Economic Co-operation and Development, 2016). The share of those

returning to school at a later age, however, is very low given the size and the significance of this cohort in the labor market. More importantly, those returning to formal education at a later age do not necessarily seek to learn new occupational skills. Many older learners also claim intellectual stimulation and opportunity for social interaction as key reasons for enrolling in education in later life (American Council on Education, 2007; Findsen & Formosa, 2011; Formosa, 2012).

There is very little research that explores more in depth the low participation in career learning among older workers. There seems to be, however, consensus that this low participation may be influenced by many factors. For example, according to the PIAAC data, older non-learners indicated several reasons for not participating in career-related learning: 1) being too busy (31 percent); 2) learning too expensive (25 percent); 3) inconvenient times or locations (15 percent); 4) family demands such as taking care after a parent or spouse (13 percent); 5) unexpected interference such as health issues (8 percent); 6) lack of employer support (6 percent); and 7) lack of learning prerequisites (2 percent) (Cummins et al., 2015). Other research agrees that the typical barriers to learning in later life are personal (e.g. family obligations, time constraints, health issues), structural (e.g. lack of support, financing, access) or attitudinal (confidence in own learning abilities, buy in) (American Council on Education, 2007; Findsen & Formosa, 2011).

Some studies also indicate that engagement in career learning in later age (or lack of it) is highly correlated with social class and previous participation in education. In other words, those able to access, succeed in and benefit from educational opportunity in early stages of their professional lives are more likely to sustain career learning throughout their lifespan (Findsen & Formosa, 2011; Knipprath & De Rick, 2014; Majeed, Forder, Mishra, Kendig, & Byles, 2015)

Again, there is only fragmented understanding of what stimulates or prevents new career learning at older age. Researchers studying aging related career struggles would argue that older workers (and learners), despite their growing numbers and labor market potential, are still severely problematized by governments, employers, and education and training providers (Findsen & Formosa, 2011; McKelvey, 2009; Powell, 2013). Contemporary research also upholds the dominant perspective on career changes at later stages of life as problematic, rather than natural phases of adult professional life (for example: Barclay et al., 2011; Kim, 2013; LaPointe, 2013; Liu et al., 2012; Murtagh, Lopes, & Lyons, 2011; Ronzio, 2012). There is also the notion of generational bias. Supporting career success of older workers continues to be questioned as a possible luxury occurring at the expense of younger generations (Carnevale et al., 2013; Eichhorst et al., 2013).

Without up-to-date skills, employment prospects of older workers may be compromised. Retaining older workers, and retaining them in good jobs, may not only serve the economic interests of older workers. It is also an economic and social security issue essential to successful generational succession. If the employment opportunities of the largest cohort of earners continue to deteriorate, the employment prospects of the next generation may be compromised as well. This is the central issue of generational transitions. That is, the cost of labor market failure of one cohort will have to be distributed among those more successful. If the struggling cohort happens to be the largest one, the costs are much harder to absorb (Carnevale et al., 2013; Eichhorst et al., 2013). For example, the quality of education for the next generation depends in large part on the earning power of those who are working. So does the quality of life for the elderly and children.

From a policy perspective, employability of older workers depends largely on two issues. First, on whether or not the labor market opportunities will allow or encourage the aging worker to continue working. For example, will there be enough well-paying and engaging jobs (Center for Workforce Information and Analysis, 2015; Segrist et al., 2007)? Or, will employers' biases against older workers decrease making it easy for older workers to get hired (Brewington & Nassar-McMillan, 2000; Rothenberg & Gardner, 2011)? Second, on whether or not frequent and radical changes in in-demand skills and knowledge will motivate older workers to invest in new learning (Findsen & Formosa, 2011; Handel, 2012). For example, will the rate and lack of predictability of changes in high demand skills discourage older workers from investing in career learning and skills development (Segrist et al., 2007)?

Here again, effective policy-making seems to be hindered by both the lack of precedent for workforce aging, and the lack of a thorough understanding of the complexities involved in older workers' decision-making about their career learning close to or past the traditional retirement age.

2.4 CONCLUSION: THE PURPOSE OF THE STUDY

The recent and projected demographic shifts – global and local – are significant, complex, and unprecedented (Beard et al., 2011; Bloom et al., 2014; McKelvey, 2009; United Nations, 2014). The large and growing cohort of older workers, particularly in the developed world, represents a special challenge but also an opportunity for achieving successful generational transitions under the new demographic conditions. If older workers struggle to maintain their employment or earning power due to rapid changes to job opportunities, they are more likely to become

consumers of, rather than contributors to, public budgets. They will add to the cost of dependencies necessarily created by raising children and by caring for the elderly and people with disabilities. They may opt out of the labor market earlier than desired, exacerbating economic conditions by generating too many vacancies that may be harder to fill with the smaller cohorts of younger workers. If they stay, they decrease dependency costs (while boosting tax revenues) and contribute to the needed knowledge and skill transfers in workplaces (Dychtwald et al., 2004; Eichhorst et al., 2013; Rudawska, 2010).

Mapping the population shifts against labor market dynamics in developed countries indicates that policy interventions aimed at replacing the aging workers with new talent are necessary but not sufficient. There are simply not enough younger workers to replace the aging cohorts, and the youth pipeline continues to decrease. Retention strategies are critical to slow the consequences of rapid aging and to improve the economic prospects of all generations (Denton & Spencer, 2009; Eichhorst et al., 2013; Samorodov, 1999). Maintaining older workers' earning power and employment until and past the traditional retirement age is harder, however, when frequent changes to labor markets create demands for new skills and expertise. Then what further complicates older worker retention in changing markets is their interest, willingness or ability to engage in new career learning.

In the absence of historic examples of how to effectively support career learning by older workers to facilitate their retention in labor markets, my study intends to generate new analyses to improve our understanding of:

- a) the current landscape of job opportunities for the older worker at the local level where career learning policies and interventions are typically enacted;

- b) how these aging workers are personally confronted by new labor market realities and what are their perspectives on learning new careers; and
- c) to what extent contemporary education and skills training policies facilitate career learning at later stages of people's professional lives.

3.0 METODOLOGICAL APPROACH

The dissertation is conceptualized as a collection of three independent but related studies framed by an introductory and a concluding chapter. Each study explores one of the key issues identified in the introductory chapter. Each of the three studies have a separate but coordinated literature review, conceptual framing, empirical analysis, discussion of findings, and a conclusion section. The concluding chapter synthesizes key findings across all three studies and summarizes their implications for policy, practice and research.

3.1 RESEARCH PERSPECTIVES

I conducted my research using the perspectives of social constructivism and critical gerontology. Social constructivists maintain that knowledge is a human construction, an ever evolving product of human activity (Guba, 1990) and that our understanding of issues does not reflect one objective reality but rather an array of socially constructed meanings of it (Owen, 2013). I believe that the key topics of my study - careers, labor markets, and the older worker category – are all social and cultural constructs creating “normative ideas about education, work and retirement [that] legitimize occupational decisions by providing a patterned system through which workers can organize their lives” (McKelvey, 2009, p.49). More importantly, I believe

that the meaning of careers and later life engagement in labor markets is being (and should be) reconstructed in significant ways in the context of population aging.

Critical gerontologists join other critical theorists in concerns related to fairness in the context of disparate political, cultural, and economic aspects of everyday life. More specifically, they focus on identifying possibilities for positive framing for the later stages of life (Cole, Achenbaum, & Jakobi, 1992; Zeilig, 2011). Critical gerontologists often work from constructivist perspectives, challenging the use of narrowly constructed categories of age as developmental milestones or proxies for abilities. As do many critical gerontologists, I believe that older workers are unnecessarily problematized in career and learning research and relevant policies. As the aging debate intensifies, it may be more useful to offer perspectives that don't look at older workers as a drain on resources or a problem the rest of society needs to deal with, but rather as an important part of the society with a strategic role to support successful generational transitions (Findsen & Formosa, 2011). That is, investments in career learning and employability of older workers not only provide benefits for the older workers themselves but for the predecessor and descendant generations.

3.2 THEORETICAL FRAMEWORK

To situate my study theoretically, I borrowed from career theory literature that is compatible with both social constructivism and critical gerontology. Career research focuses on ways people develop, maintain and further their professional activities over a lifespan. Career is generally understood as a vocational choice with a corresponding skillset and identity, and a life-long trajectory negotiated in the labor market for primarily economic benefits (Lyons et al., 2014).

Specifically, my study is anchored through the tenets of career construction theory (Savickas, 2005). Career construction theory looks at reasons and ways that individuals (re)construct their careers. It understands careers as fluid constructs created through people's meaning-making. It uses a constructivist lens to incorporate issues of vocational identity, life themes, and career adaptability. Under this theory, careers are constructed through the narratives of individuals who "translate their storied identity into work roles" (Del Corso & Reh fuss, 2011, p.335).

In the career literature, career construction theory is considered to be part of a larger discourse community studying careers from "other-than-rational perspectives" (Murtagh et al., 2011). This discourse community draws from constructivist and post-modern approaches to career theorizing that emerged in the 1990s in response to the changing world of work and to the need to better reflect the dynamic, contextual and socially-constructed realities of career trajectories (Del Corso & Reh fuss, 2011; Hall, 1996; Krumboltz, Foley, & Cotter, 2012; Murtagh et al., 2011; Pryor & Bright, 2014). These approaches view career choices and identity as socially or culturally inscribed rather than as psychologically determined (Stead & Bakker, 2010). That is, people's careers are much more driven by social and cultural context – such as advice and example from a family member, available training or jobs in a local community, or opportunity presented through a personal network, than by people's inherited talents or personality traits. They also dispute the level of rationality of career related decision-making by providing evidence on people's tendency to settle for good rather than optimal career outcomes, especially in times of increased labor market volatility (Del Corso & Reh fuss, 2011).

The dominant career discourse, on the other hand, is rooted in sociological and psychological disciplines linking the patterns of individual behavior and career decision-making

with social conditioning of career opportunities (Burns, 2012). This discourse produced a number of trait-based, development-based and cognitive-based career theories understanding careers as results of a rational decision-making. Influenced by economic models of expected utility, they see careers as linear trajectories that individuals chart by way of logical and systematic identification of optimal outcomes derived from calculations of probability and perceived value (Murtagh et al., 2011).

I chose career construction theory because it acknowledges context and agency as components of dynamic and not always fully-rational, career decision-making. This framing allows for richer accounts and understanding of career negotiations of older professionals. I believe that career dynamics of older workers encompass multiple complex problems – for example, the changing contract between employer and worker, the longer, richer interplay of career and life roles, the role of cultural context in career formation, the individual and social dimensions of career identity, and the personal experience of aging, among others. Therefore, studying these career dynamics benefit from ontologies – such as career construction theory, social constructivism and critical gerontology – that support generating a fuller and more nuanced understanding of the relevant dynamics and their interplay.

Conducting empirical research using career construction theory allowed me to look at ways older workers adapt to changing labor market opportunities while attending to their own career interests, attitudes, life demands, and vocational identity (S.-J. Kim, 2013; Lee, Felps, & Baruch, 2014; Russell, 2011; Stebleton, 2010; Zacher, 2014).

3.3 RESEARCH SETTING AND JUSTIFICATION

I conducted my research in a specific geographic area – the Pittsburgh Metropolitan Area which includes the following counties: Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland. Identifying issues of global significance helps to convey a sense of urgency, but it is not sufficient for informing domestic national or local policy or interventions. Policies are by default enacted locally. They need to be grounded in a more granular understanding of how global trends manifest locally (Powell, 2013).

Local context matters. Variances in local environments – be they cultural, economic or political – create specific “eco-systems” that can often shape the effects of strong global trends. For example, availability of educational institutions, access to natural resources or transportation hubs, weather conditions, immigration patterns, population density, and demographics, among other factors, influence the regional compositions of industry sectors and occupations (Swinwood, 2013). Local analyses are important in understanding the lived experiences of older workers negotiating involuntary career changes due to changing market conditions. Older workers are in particular much more rooted in their local environments - they are significantly less likely to relocate in response to changes in their labor markets and therefore more likely to settle for whatever employment options are left (McKelvey, 2009).

The introductory chapter of my study focused on broad context. It described (and quantified) demographic changes and volatile employment dynamics as global trends while drawing attention to embedded issues such as generational transitions and employability of older workers. The three individual studies then shift focus to local dynamics in order to examine the interplay of aging with the changing employment patterns in a particular place while focusing on policy issues surrounding career learning at later stages of life.

I selected the Pittsburgh Metropolitan Statistical Area as a relevant and suitable example of a local area in which my study can be conducted. With a median age of 41 years (3.3 years above the U.S. benchmark), Pittsburgh is among the oldest regions in the U.S. (U.S. Census Bureau, 2015). Its labor market, however, resembles the national pattern in terms of industry diversity and distribution of jobs across industry sectors (U.S. Bureau of Labor Statistics, 2015). There are over 230,000 (21 percent of the total) workers 55 or more years old, out of which 140,000 workers are expected to retire over the next 10 years (U.S. Bureau of Labor Statistics, 2014).

4.0 FIRST STUDY: AGING WORKERS AND THE LOCAL LANDSCAPE OF LABOR MARKET OPPORTUNITIES

4.1 INTRODUCTION

Aging is a complex and unprecedented demographic trend (Beard et al., 2011; Bloom et al., 2014; McKelvey, 2009; United Nations, 2014). This fast and significant shift in population dynamics have cost implications affecting all generations. Paying attention to the employability of older workers is now necessary to tackle rising costs of population aging. Employed older workers generate tax revenue and reduce the growing number of older dependents (Zaidi et al., 2006). They also help the younger workers to bear the costs of social security benefits that children, elderly, poor and people with disabilities consume.

Maintaining employability of older workers until and past the traditional retirement age is harder, however, when changes to labor markets reconfigure the landscape of their employment opportunities. What further affects older worker retention in changing markets is their interest, willingness or ability to prolong their working lives. One key challenge policymakers and institutions face in their attempts to workforce aging is the lack of historic examples available to guide decision making (Bloom et al., 2014). This study explores the overlap of demographic and labor market changes on a local level to generate contextualized insights informing older worker retention policies. Specifically, the study overlays local labor market data with experiences and

perceptions of aging professionals, and creates an opportunity to shift aging debates from generic projections of the problem, such as quantifying workforce shortages due to mass retirements, to a more complex imagining of possible solutions by considering multiple future “what if” scenarios. In doing so, this study answers two particular research questions: Does the landscape of labor market opportunities in the Pittsburgh region support employability of older workers? And how do local aging professionals view their career future in the context of the local labor market?

4.2 WHY SUPPORT EMPLOYABILITY OF OLDER WORKERS

The Pittsburgh region exemplifies the intertwined nature of labor market and demographic shifts in post-WWII industrial America. From the 19th century until the 1970s, the region relied economically on manufacturing. The 1980s’ collapse of the steel industry in Pittsburgh resulted in a loss of 100,000 manufacturing jobs with corresponding layoffs in other sectors (Bednarzik & Szalanski, 2012). With over 212,000 unemployed workers, the unemployment rate reached 18.2 percent in January 1983, almost 8 percentage points higher than the national rate (Briem, 2008). This radical shift in the local market significantly altered the demographic composition of the region. Due to the economically induced out-migration of more than 110,000 predominantly younger workers between 1980 and 1988 (Bednarzik & Szalanski, 2012), the region became one of the oldest in the country long before the baby boom generation reached older age. In the mid-1990s, the share of people over 65 in Pittsburgh was 18 percent - significantly above the national share of 12.5 percent (Musa, Beach, Briem, Schlarb, & Schulz, 2014).

The Pittsburgh region has experienced population aging in two waves. The initial increase of older cohorts in the 1980s and 1990s was caused by the economically induced out-migration of younger workers. Since 2010, the rapid aging is driven by the baby boom generation entering their 50s and 60s. The first wave of aging did not last long and actually subsided between 1995 and 2010 (Musa et al., 2014). The second wave is here now and will not go away anytime soon.

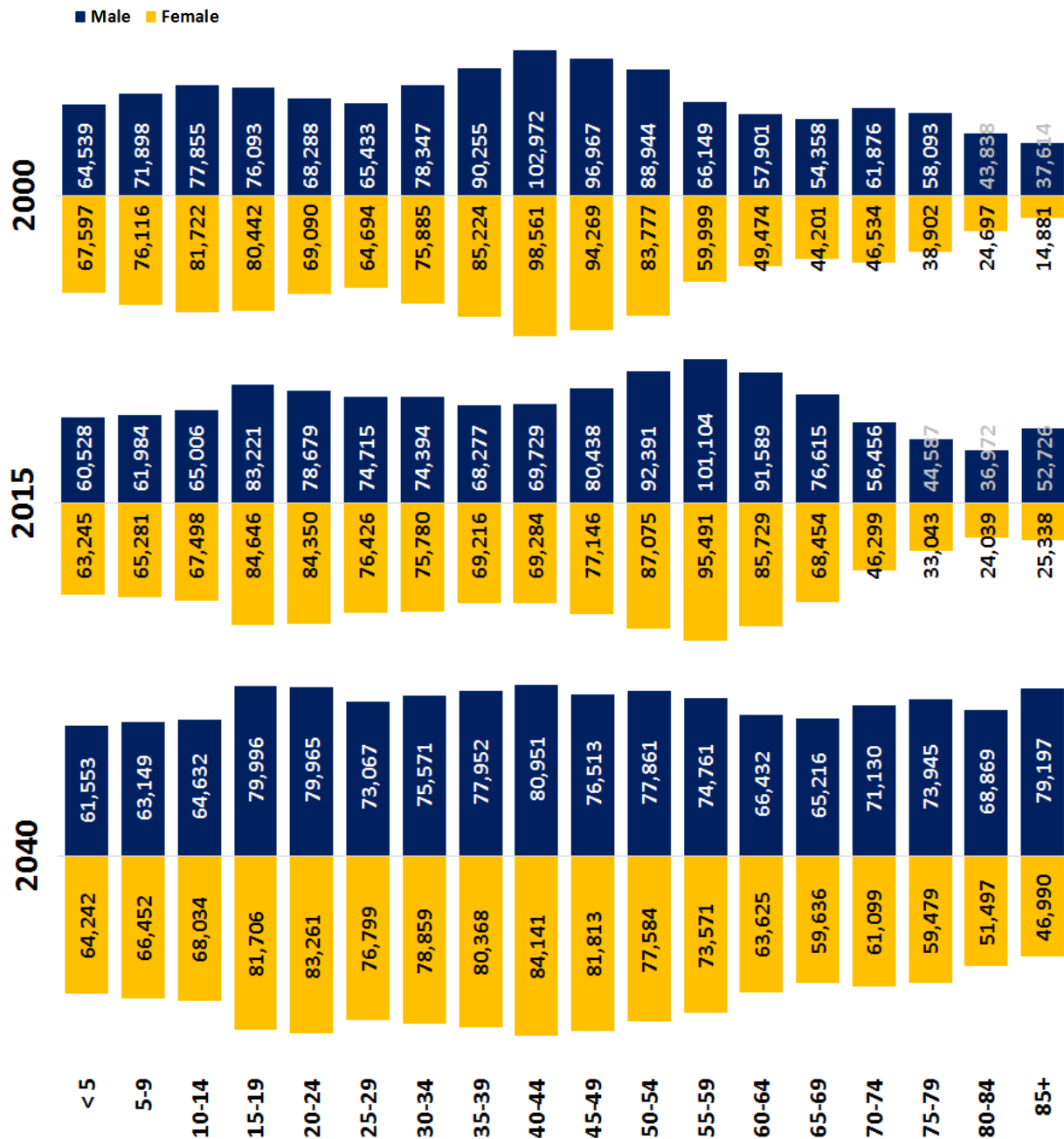
Despite the region's earlier experience with population aging, this second wave of aging is much more complex. It does not relate to specific structural changes in the labor market that can be easily managed. It relates to significant, local, national and global structural changes to population dynamics. Aging as we know it today lacks precedent. Never before locally and globally were there so many older people. More importantly, never before did the share of older people surpass the share of population below the age of 15.

Despite the complexity of shifting demographics, the biggest concern aging presents is the massive scale of its cost. Dependency ratios are one of the measures economists use to forecast financial implications of population changes; they express the share of children to the working age population (young-age ratio) and the share of older people to the working age population (old-age ratio).

In 2015, the local population 55 and over accounted for close to 840,000 (34 percent of the total population), a significant increase from approximately 660,000 in 2010 (see Figure 10). By 2040, this cohort will surpass 915,000 (36 percent of the total population). The share of people 65 and over will increase by 37 percent by 2040 while the share of children below 15 will grow by only 1 percent over the same time, from approximately 383,500 to 388,000. The 15-65

cohort, the working age population, will decrease by 5 percent by 2040 from the approximately 1,620,000 in 2015 to less than 1,545,000.

Figure 10: Population Pyramids (2000, 2015, 2040) Pittsburgh Metro Area



Data Source: Pennsylvania State Data Center for the Center for Rural Pennsylvania, 2016.

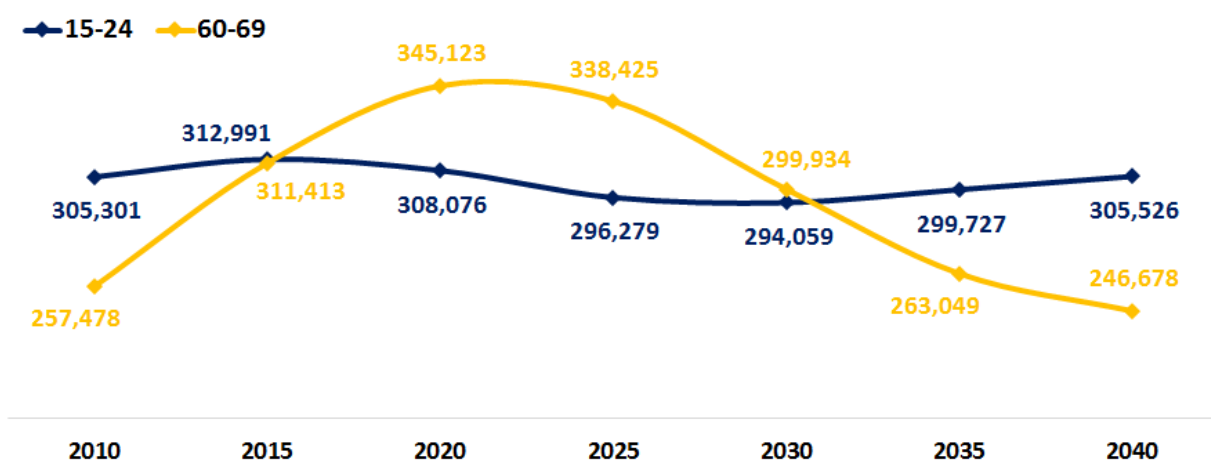
This uneven growth in the three core demographic categories – children, working-age and older populations – will result in significant increases in dependency ratios, that is, the number of children and elderly per the number of working-age people who support them through their economic activity. Currently, there are close to seven working-age individuals supporting a little over three dependents; by 2040 six working-age individuals will have to support four dependents. And that is an optimistic projection as this rough age-base economic measure doesn't reflect the share of working-age people who are, for example, not working because of labor market conditions, disabilities, their choice, or incarceration.

Traditionally, population shapes truly resembled pyramids: There were more people aging into the labor markets than those aging out and therefore prolonging the working lives of older workers was not only unnecessary but often undesirable (Eichhorst et al., 2013; Samorodov, 1999). The demographic shift from stronger young populations toward stronger older populations disrupted this natural workforce replacement dynamic. One of the most immediate threats of this shift is the adverse economic consequences of mass retirements. There are simply not enough younger workers to fill both new jobs created by economic growth and jobs vacated by retiring workers. Many unfilled jobs would stifle the region's economy, affecting employers' productivity and government's tax capacities.

If we assume that people enter the labor market before they reach 24 and retire between 60 and 70, the Pittsburgh region is looking at significant challenges to replace the aging workforce with the local supply of young people (see Figure 11). Today, the two groups are of similar size. By 2020 the cohort 60-69 years old will surpass the cohort of 15-24 year olds by 37,000. And this is just a straightforward math exercise that does not take into an account job growth which is projected to be around 4 percent over the next 10 years or differing employment

rates (typically higher for the older generation) and marketable skills and credentials, so the actual challenge may be bigger.

Figure 11: Population 15-24 and 60-69 years old (2010-2040), Pittsburgh Metro Area



Data Source: Pennsylvania State Data Center for the Center for Rural Pennsylvania, 2016.

Not all jobs vacated by retiring workers will continue to exist. Some may go away due to technology advances or business reorganizations. Others may disappear as a direct consequence of the new demographic changes – for example, the declines in school enrollments is likely to reduce the number of teaching jobs. Nonetheless, most of the jobs will stay and new jobs will be created – current projections estimate 29,000 retirement-created replacement jobs and 5,000 new jobs annually between 2015 and 2025 (Burning Glass Technologies, The Council for Experiential Learning, & Allegheny Conference on Community Development, 2016). Or rather, most of the jobs will stay and new jobs will be created if there are enough workers to fill them.

The most concerning part of the region's population projections is that despite the fact that the changes are significant and unprecedented, they also seem familiar and perhaps not as threatening. After all the region recovered from the steel industry collapse and the related

increase in old-age dependency ratios. However, this is different – we have never experienced such a shift in demography. And there is very little to suggest that the first wave of aging the region experienced in the 1990s helped us to be proactive in addressing the needs of older workers rather than to just become used to the general notion of population aging.

Over the next 25 years, the shape of what we still call a population pyramid will look very different, with almost even numbers of people in each age cohort. Prolonging working lives of older people in the region seems a very logical way of dealing with the rapidly raising dependency ratios. If employed, older people would remain economic contributors, not dependents. If employment prospects for the aging workforce, however, are not good, the economic (and social) consequences will be complex. The cost of labor market failure of one cohort will have to be distributed among those more successful; this is the central notion of generational succession. If the struggling cohort happens to be the largest one, the costs are much harder to absorb (Carnevale et al., 2013; Eichhorst et al., 2013). For example, the quality of education for the next generation depends in large part on the earning power of those who are working. So does the quality of life for the elderly and children. If the employment opportunities of the largest cohort of earners weaken, the employment prospects of the next generation may be compromised as well (McClure & Krekanova, 2016).

The challenge then is how, not if – how to motivate aging professionals to keep working, how to ensure good employment prospects for everyone, or how to facilitate provision of career learning to support employability of older worker past the retirement age (Moulaert & Biggs, 2013; Munnell et al., 2015; Rudawska, 2010). This study explores the first two of these issues.

4.3 STUDY DESIGN

The study is conducted as a local labor market information analysis. Labor market information is one of the main inputs to policy-making and planning concerned with investment in provision of education and career training (Swinwood, 2013). This analysis focuses on exploring the changes in industrial and occupational composition over the last 15 years in the Pittsburgh region in the context of workforce aging.

Labor market information analysis for workforce policy-making is typically conducted under conceptual frameworks concerned with workforce or skills projections (Swinwood, 2013). The usual purpose is to capture a historic pattern of employment dynamics and use it to model predictive algorithms for establishing future demand. Traditional labor market supply-demand projections based on generic, mathematical algorithms, however, do not account for new demographic and occupational trends. Both demographic and employment dynamics are changing too quickly and legacy models created in times when labor markets were predictable have become inaccurate (Capelli, 2008). Past trends in a form of mathematical inputs are no longer sufficient for reliable estimates of future workforce trends (Swinwood, 2013). In workforce aging, there are no historic patterns. Demographic shapes are now very different than a decade or two ago and will change again soon (Powell, 2013). Similarly, the composition of jobs and skills in labor markets is more dynamic, prone to frequent changes induced by technological advances or reorganization of business chains (Handel, 2012; McKelvey, 2009). Therefore, this analysis is intentionally oriented more toward the recent past and the present than toward the future. In other words, it is not about predicting when and how many people will retire and what skills shortages that may cause. Rather, it is to point out how labor market conditions alter current employment prospects of older workers and their retirement plans.

The guiding questions of this study – Does the landscape of labor market opportunities in the Pittsburgh region support employability of older workers? and How do aging local professionals view their career future in the context of the local labor market? – aim at creating a better understanding of the perspectives aging professionals have about their employability and about ways their continuing engagement in the labor market can be better supported by public policy.

4.3.1 Theoretical and conceptual framework

The study uses the tenets of career construction theory (Savickas, 2005). Career construction theory looks at reasons and ways that individuals (re)construct their careers. It understands careers as fluid constructs created through people's meaning-making. It uses a constructivist lens to incorporate issues of vocational identity, perceptions of opportunities, career adaptability, and life themes. In line with this theoretical framework, I conducted this labor market information analysis as a sense-making effort of employment trends, not as an exact assessment of current or future skills in demand. For example, for the purpose of supply side, the study considers the changing number of labor market participants, but not their specific skills or educational backgrounds as these are fluid qualities (Del Corso & Reh fuss, 2011). For the purpose of demand side, it considers the changing number of jobs in diverse occupations and industry sectors. It does not stipulate specific knowledge, skills or competencies these jobs may require as hiring dynamics are typically influenced by more complex factors (Peake & McDowell, 2012; Pryor & Bright, 2014). The sense-making of the local labor market statistics happened in two specific ways – by the aging professionals' reflection of their current and future employment prospects, and by stipulating possible challenges and opportunities for future public policy.

Conceptually, my research relies on the assumption that older worker retention cannot be simply regulated by the traditional policy instruments such as increasing retirement age. Instead we need to ensure good employment opportunities exist, people see value in working longer and they have the right skills. This study focuses specifically on the ways the changing landscape of employment opportunities and workforce demographics interplay locally, and how these dynamics influence career and retirement planning of older workers.

4.3.2 Data

The study leverages de-identified labor market data available through the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. Specifically, it uses the following datasets: People and Households produced by the U.S. Census Bureau. This dataset provides demographic data for population within specific geographic areas. Quarterly Workforce Indicators produced by the U.S. Census Bureau. This is a set of economic indicators including employment, job creation, earnings, and measures of employment flows such as new hires, separations and turnover for industry sectors within specific geographic areas. Current Employment Statistics Survey produced by the U.S. Bureau of Labor Statistics. This is a monthly survey of the payroll records of business establishments providing data on employment, hours, and earnings of workers for industry and occupation sectors within specific geographic areas.

All data are aggregated for the Pittsburgh Metropolitan Statistical Area. All data included in the labor market analysis are collected periodically by these three government entities through consistent methodologies. Not all these datasets follow the same release timeframe and none of them can be considered real time; the study uses latest available datasets in spring 2016.

In addition, I used narratives of 15 local individuals 50 or more years old, working or looking for work. This sample was not intended to achieve statistical validity and to generalize the study's findings as relevant to the entire population. Rather, it served to portray diverse ways aging professionals look at career learning and how their learning experiences shaped their career trajectories and future career plans. The size of the sample, therefore, was created out of a commitment to reaching a meaningful level of saturation rather than statistical validity, to creating a useful portraiture rather than a generalizable pattern. Table 3 provides a detailed summary of the participants. I used pseudonyms to protect the participants' privacy.

I recruited the participants through an ad distributed through a local network of agencies that serve workers and job seekers. This network includes post-secondary training institutions, workforce development agencies, and career centers. In addition, I used my LinkedIn network of close to 500 individuals to distribute the ad. The call for participants was open for approximately one month and I received interest from 21 individuals. Two of these individuals did not meet the selection criteria and an additional four were ultimately unable to commit to the in-person interview. Two thirds of the study participants were women. While I strived for a more balanced sample, men were not as interested as women in participating in the study. The feedback I received from the agencies I relied on to distribute the call for participants included the stipulation that men are less interested in sharing their stories (especially when/if they include unwanted struggles or failures) and that they are also less likely to pay attention to the ad itself.

Ultimately, I engaged ten women and five men and collected fifteen narratives through approximately 60-90 minutes long in-person, semi-structured interviews. I let the participants walk me through their career history and future plans, and, in particular, their career learning experiences and decision-making. I conducted the interviews from a biographical perspective

(Kaufmann, 2006). That is, I encouraged the study participants to describe their career trajectories as they understood them now. This approach supported the expectations of the career construction theory that guides this study. It created the opportunity to capture not only facts but also and more importantly the ways study participants made sense of their own career histories and future career directions (Del Corso & Rehfuss, 2011).

Table 3: Study Participants

Person	Age	Education	Occupation		Income	Retirement Plans
			Former	Current		
Alice	2	associate's degree	marine, medical secretary	administrative	below average	doesn't plan to retire
Bill	53	graduate degree	saw mill worker, reporter, entrepreneur	communications professional	average	doesn't plan to retire
Carlos	53	college degree	cook, custodian, driver, gym operator, DJ, videographer	teacher	average	will retire as soon as possible
Ed	53	post-secondary training	banking professional	IT technician (temporary employment)	below average	no specific plans yet
Beth	56	college degree	non-profit manager, stay-at-home mom	research center coordinator	below average	no specific plans yet
Ella	56	graduate degree	hairstylist, construction worker, cook/baker	registered nurse	average	will retire as soon as possible
Frank	56	college degree	civil and environmental rights activist, graphic and database technician	software developer	above average	no specific plans yet
Jane	57	college degree	nuclear engineer, stay-at-home mom	donor relations manager	average	no specific plans yet
Debbie	58	graduate degree	banking professional	teacher	average	will retire as soon as possible
Helen	58	high school, pursuing college degree	accounting clerk, stay-at-home mom	administrative professional in a higher education institution	below average	no specific plans yet
Gwen	61	graduate degree	public administrator	part-time cashier	below average	no specific plans yet
Carol	62	high School	broadcast and newspaper production worker	administrative support	below average	no specific plans yet
Fay	62	graduate degree	marketing and communications professional	unemployed	no earnings (used to above average)	no specific plans yet
Dave	64	graduate degree	firefighter	fire department administrator, adjunct faculty	above average	doesn't plan to retire
Irene	66	graduate degree	legal, public policy & business operations professional	adjunct faculty and political campaign leader	above average	doesn't plan to retire

4.3.3 Data analysis

I analyzed the labor market data through tools of descriptive statistics. The analysis focused on quantitative and graphical summaries of demographic and labor market trends. The analysis included the region's baseline demographic and labor market data for the year 2000, an assessment of change from 2000 to 2015. It also included an assessment of projected demographic changes by 2040 and an assessment of projected change of employment opportunities for older workers by 2025.

I analyzed the participants' narratives through NVivo 11, qualitative software that allows to organize, manage, code, and visualize data, and capture emerging themes. The narrative analysis (Mertens, 2010) incorporated methodological principles of grounded theory (Snyder, 2012) to identify the main themes surrounding older workers experiences in negotiating their careers and conducting career planning in the current labor market. The captured emergent themes were examined through the constant comparative method (Moon, 2011). That is, it compared every new theme to the previously coded material to capture common properties or relationships (Harry, Sturges, & Klingner, 2005). After the initial open coding, I continued with axial coding that explored the commonalities among codes along specific axes (Liu et al., 2012).

I present the analysis through textual descriptions, tables and graphics, and through a summary account (including direct quotes) of current career experiences and future career plans of aging professionals in the Pittsburgh region.

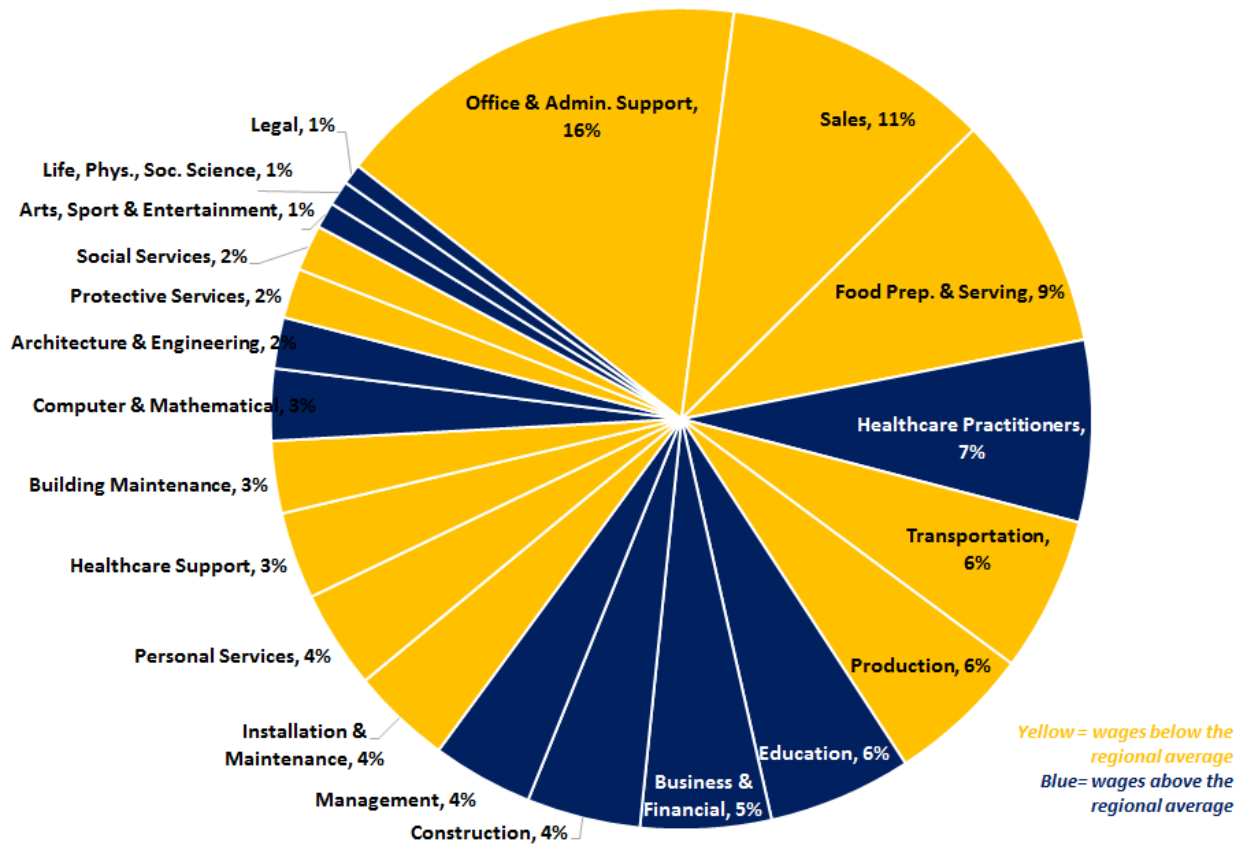
4.4 LOCAL LANDSCAPE OF LABOR MARKET OPPORTUNITIES

Strong employment opportunities in the local markets are key to prolonging working lives of older people and ensuring they remain economic contributors, not dependents (Findsen & Formosa, 2011; Rudawska, 2010). The next section looks at the job market in the Pittsburgh region and examines how the local employment opportunities changed over the last 15 years, particularly for the growing cohort of aging professionals. It assesses the diversity, quantity and quality of the local jobs, asking whether the local market conditions improved or deteriorated for older workers.

4.4.1 Employment opportunities in the Pittsburgh region.

The industry composition of the Pittsburgh region is more diverse than it ever was. Mirroring the national trends, the jobs post-1980s shifted into the service economy that today employs about 90 percent of people in the region. About 36 percent of the local jobs are concentrated in three occupational clusters (see Figure 12) – office and administrative support, sales, and food preparation and serving. Both the median and the average wages in these occupations are below the regional benchmarks of \$20.64 per hour median wage and \$21.93 per hour average wage. Except for health practitioner and education jobs, most of the highest paying jobs are in occupational clusters accounting for less than 5% of the region's jobs.

Figure 12: Distribution of Jobs by Occupational Clusters (2015), Pittsburgh Metro Area



Data Source: U.S. Bureau of Labor Statistics, 2015

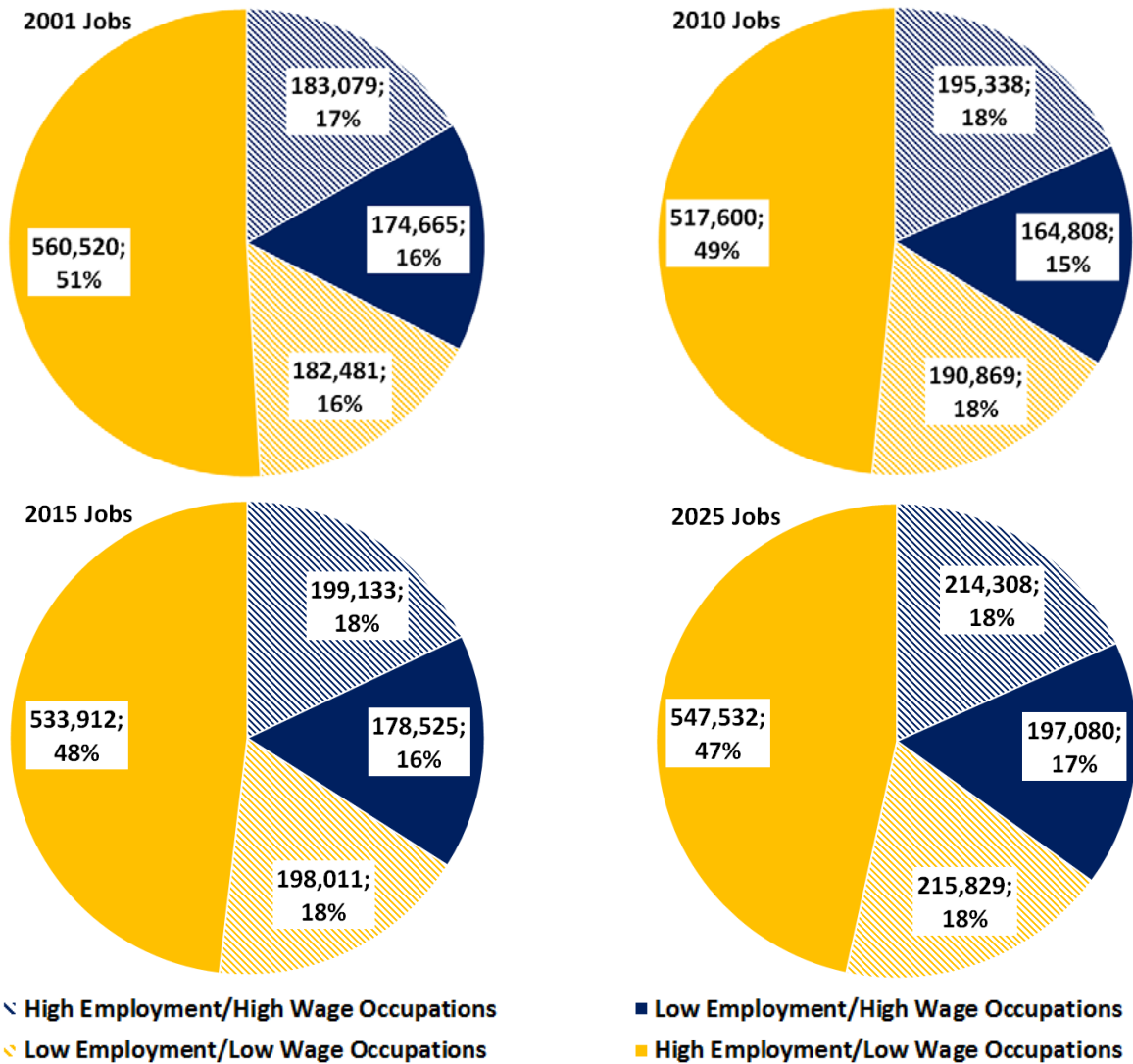
Since 2001, the region experienced due to the Great Recession very slow job growth – approximately 1%. Production occupations marked the biggest losses (-24%) while healthcare (both practitioner and support occupations) scored the biggest gains (13% and 25%). The next 10 year projections are expecting 5% growth with gains across most occupations. As occupational consistency is no longer reflective of many people’s careers (Hess et al., 2012a; K. LaPointe, 2013), looking at labor maker dynamics through specific occupational projections could be misleading in assessing employment opportunities. So perhaps a better way to look at the

changes in the regional labor market is by using employment volume and wage metrics (see Figure 13).

For the purpose of this labor market analysis, high wage jobs are those above the regional benchmarks of \$20.64 per hour median wage and \$21.93 per hour average wage. Low wage jobs are below these benchmarks. High employment jobs are those with at least 50,000 (about 5 percent) jobs per occupational cluster. High employment jobs are often highly accessible – they either present low entry barriers in terms of skills or geographic distribution (jobs in food serving or retail) or they stimulate availability of training and other resources because they are of high economic importance to the region (jobs in healthcare, education or banking). High employment jobs may also provide broader opportunities for upward mobility, especially in the high wage clusters. Low volume jobs, on the other hand, may be harder to access due to higher competition (jobs in arts or sports) or more complex and specific skills (legal, computer, engineering jobs). Low volume jobs may also have fewer opportunities for advancement, especially in the low wage clusters.

Since 2001, there was very little change in the distribution of the region's jobs across the wage spectrum. About 66 percent of the jobs are low wage, down from 67 percent in 2001. Low wage jobs declined in high volume (e.g. retail, admin. support) and grew slightly in low volume (healthcare support) clusters. High wage jobs account for about a third of the region's jobs and are slightly more concentrated in the high volume clusters.

Figure 13: Job Composition (2001, 2010, 2015, 2025), Pittsburgh Metro Area



Data Source: U.S. Bureau of Labor Statistics, 2015

4.4.2 Older workers in the Pittsburgh region.

To some extent, the employment of people over 55 mirrors the occupational distribution of the general workforce. A larger segment of older workers - 29 percent - is employed in office and administrative support, and sales occupations, as opposed to 27 percent of all age workers. These jobs pay below average wages and are projected to decline over the next 10 years (see Figure 14).

Figure 14: Occupational Employment of Older Workers (2015-2025), Pittsburgh Area

		Share of all 55+ workers	2015-2025 Growth	Average 2015 Hourly Wage
Office & Admin. Support	50,664	19%	-3%	\$16.70
Sales & Related	27,676	10%	-7%	\$18.50
Healthcare Practitioners & Technical	19,962	7%	13%	\$33.80
Transportation & Material Moving	19,369	7%	-7%	\$16.60
Education, Training & Library	19,089	7%	1%	\$25.70
Production	16,747	6%	-24%	\$18.50
Business & Financial Operations	13,620	5%	12%	\$32.30
Management	12,300	5%	2%	\$55.50
Food Preparation & Serving	11,853	4%	15%	\$10.40
Installation, Maintenance & Repair	10,918	4%	-8%	\$21.30
Personal Care & Service	10,568	4%	30%	\$11.40
Building/Grounds Cleaning & Maintenance	8,969	3%	-3%	\$12.60
Construction & Extraction	8,763	3%	-6%	\$23.30
Healthcare Support	7,625	3%	25%	\$13.50
Architecture & Engineering	6,200	2%	1%	\$36.40
Protective Service	5,459	2%	0%	\$19.00
Community & Social Service	5,092	2%	17%	\$18.90
Computer & Mathematical	4,662	2%	12%	\$34.40
Life, Physical & Social Science	2,614	1%	21%	\$30.60
Arts, Design, Entertainment, Sports & Media	2,432	1%	-5%	\$24.80
Legal	2,067	1%	16%	\$50.00

Data Source: U.S. Bureau of Labor Statistics, 2015

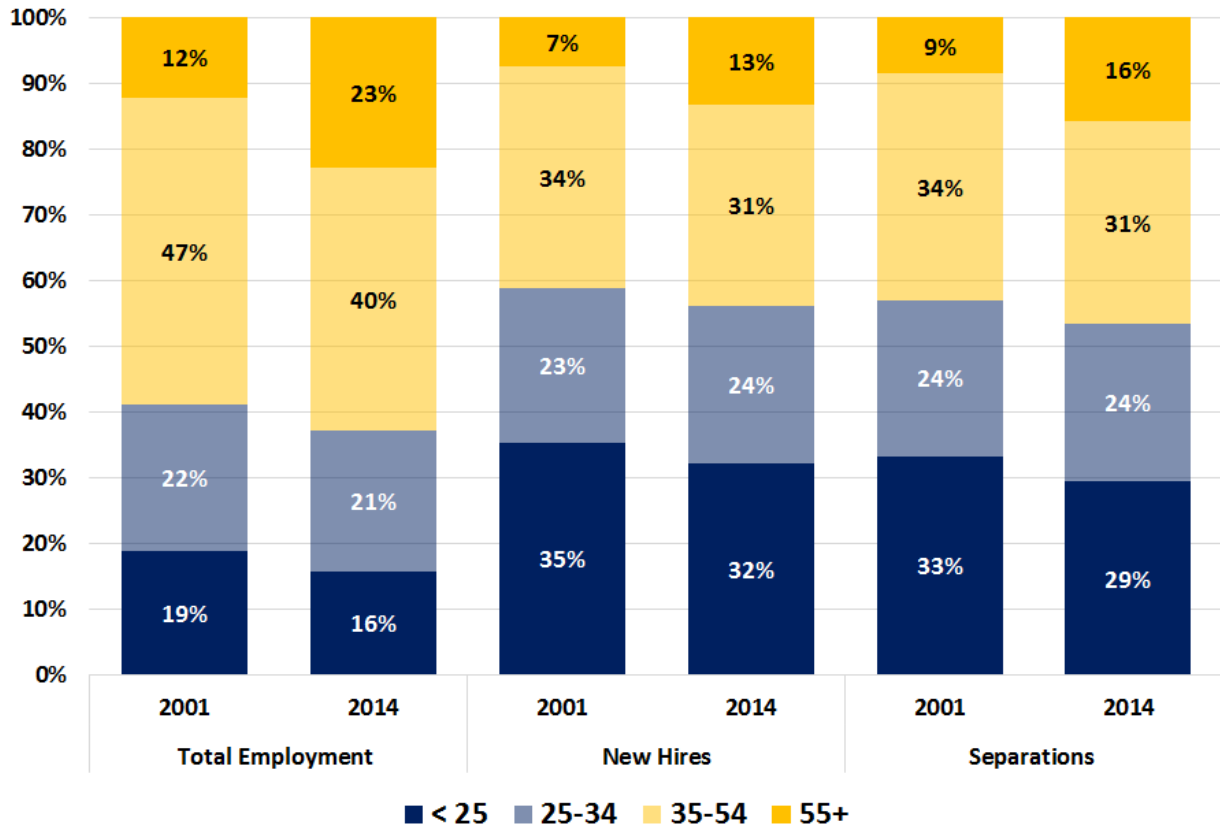
Overall, only about 34 percent of older workers are employed in occupations with above average wages. And about 53 percent are employed in occupations projected to decline. The five occupational clusters that are projected to grow above the region's 4 percent rate and also pay above average wages employ only 16 percent of the older workers.

4.4.3 Changes in employment and earnings of older workers.

Based on the 2014 regional average, approximately 160,000 people got hired each quarter and about 150,000 left their job. Of the new hires, about 22,000 (13 percent) were 55 or older, and of the separated workers, over 24,400 (16 percent) were above 55. In comparison to 2001, the share of older workers in total employment, in new hires and in separations increased at similar rate, about 1.9 times (see Figure 15).

Based on these statistics, there is no evidence that that the likelihood of getting hired or of losing (or quitting) a job after 55 is worse than in 2001. There are, however, almost twice as many older workers than in 2001 experiencing a job change – voluntarily or involuntarily – and these changes are not always smooth or easy. Late career shocks are the second (after health issues) most important driver of early retirement (Munnell, Sanzenbacher, & Rutledge, 2013).

Figure 15: Employment Dynamics by Age of Worker (2001, 2014), Pittsburgh Area



Data Source: U.S. Census Bureau, 2016

An important aspect of the hiring and separation dynamics is the quality, that is earning potential, of jobs older workers are accessing or leaving. In 2001, 56 percent of the new hires over 55 got a job with below average wages. In 2014, it was 62 percent of all the older hires. More importantly, the cohort of older bottom earners (making less than \$1,600 per month) rose from 10 to 27 percent over the last 15 years.

The 2014 average monthly earnings of new hires over 55 were \$2,735, 104 percent of the average monthly earning of all workers. The average monthly earnings of separating older workers in the same year were \$3,126, 116 percent of the average monthly earning of all

workers. These data point to an important issue – in comparison to younger workers, those over 55 have an earning advantage. This earning capacity is, however, much stronger for those losing or leaving their jobs. Older new hires are, on average, making only slightly more than their younger counterparts. This suggests that those over 55 negotiating new jobs are more likely making less than previously.

4.4.4 Local employment conditions are not favorable to older workers.

The positive aspect of the Pittsburgh labor market is its diversity. The post-steel landscape of local jobs includes a much broader range of industries and occupations. This protects the region from dependency on one industry sector (like the steel production in the past) and allows people with diverse skillset to find employment opportunities (Fertig & Kluve, 2004). In terms of job quality, however, almost seven out of the local 10 jobs are in occupations with wages below the regional average wage of \$21.93 per hour. Older workers in general seem to have access to the same employment opportunities across the occupational spectrum as their younger counterparts. Nonetheless, only about 34 percent of older workers are employed in occupations with above average wages, and more than a half of older workers are working in occupations projected to decline over the next decade.

One of the most important aspect of the older worker employment dynamics is the rapid increase of those experiencing a job change after the age of 55: in 2001 only seven percent of the region's new hires were older workers, by 2014 the share increased to 23 percent. Similarly, the share of older job leavers jumped from the 9 percent in 2001 to 16 percent in 2014. The local data suggest that the share of older job changers will continue to increase due to two factors – the fact that many older workers are employed in occupations projected to decline, and the fact that

the number of older workers will continue to increase. An important aspect of job changes at later age is that these voluntarily or involuntarily job changes are coupled with significant drops in earnings: an older new hire earns almost \$400 (or 13 percent) less in monthly average wages than an older job leaver while any age new hire earns only about \$70 (or three percent) a month less than any age job leaver.

Going back to the issue of the region's ability to retain older workers in the labor market, the local data support two somewhat opposing scenarios. First scenario, the increased job turnover among older workers will hinder older worker retention because of late career shocks, including involuntary job changes are one of the most important drivers of early retirement (Munnell et al., 2013). Often, for example, older workers without a job, and especially if their unemployment is prolonged, tend to become uncertain about the current value of their skill and struggle to convince hiring employers about their past experiences being a good fit for the open jobs (Antonovics, 2012; Cummins et al., 2015; Rothstein et al., 2011). Others experience age discrimination as some employers perceive higher age as correlated with lower performance or a higher risk of employee turnover (Katz & Calasanti, 2015; Patrickson & Ranzijn, 2013; Rothenberg & Gardner, 2011; Van Solinge & Henkens, 2014).

Second scenario, the diminishing earning potential of older workers will support older worker retention because earning capabilities play an important role in people's decision on retirement. More specifically, lower earners are less likely to afford to retire at 65 (Munnell et al., 2015). The regional statistics suggest that a significant number of the older workers do not have access to high paying jobs and that may prevent them to make (and save) enough to be able to retire.

4.5 CAREER PLANS OF LOCAL AGING PROFESSIONALS

This section looks at the conditions of the local labor market from the perspective of older workers negotiating their careers in the Pittsburgh region. It examines two specific issues related to the notion of older worker retention: their retirement plans, or motivation to continue working past their retirement age, and their perceptions of employment opportunities. The section outlines major themes that emerged from the interviews of local baby boomers, now aging professionals.

4.5.1 When will local baby boomers retire?

The population data suggest that we can't assume baby boomers' retirements will be solved through workforce replacement by relying on the local supply of younger people or strong immigration. Retention of aging workers is becoming a necessity to sustain the region's economy. The problem is that we know very little about how to accomplish this. One key challenge policymakers and institutions face in their attempts to address workforce aging is the lack of historic examples available to guide decision making (Bloom et al., 2014). Traditional labor market supply-demand projections based on generic, mathematical algorithms do not account for new demographic and occupational trends. The challenge here is that, besides the fairly precise population projections, there is very little we can ascertain about the future career-related decisions and behaviors of aging workers. We have already started to see that, for example, retirement projections made a decade or two ago are not panning out; the work-to-retirement transitions of baby-boomers differ from their predecessors (Freedman, 2006; Ondrich & Falevich, 2013). Traditional one-time, permanent exits from the labor market are no longer

common among aging workers, as many transition gradually from full employment to full retirement (Cahill, Giandrea, & Quinn, 2015).

Another challenge that policymakers and institutions face in their attempts to retain aging workers in the labor market is the multitude of reasons influencing people's decisions to retire. As a large demographic group, baby boomers are very diverse and so they are their reasons for working or retiring. While for some baby boomers, retirement is still something they want to reach as soon as possible, others are motivated to continue working. But their motivations come from different sources. For some, the reasons are economic, people can't afford to retire. For others, they are psychological, people derive a sense of purpose, structure or satisfaction from working. Some baby boomers are withdrawing from employment due to health issues, as health concerns typically increase with age. Other baby boomers continue working for social reasons, as retirement can be socially isolating and people draw a lot of benefits from social interactions. And some are transitioning into retirement involuntarily, discouraged by a lack of employment opportunities in their labor markets (P. Brown & Vickerstaff, 2011; Khan, Rutledge, & Wu, 2014; Munnell et al., 2013; Rutledge, Gillis, & Webb, 2015; Van Solinge & Henkens, 2014). For many, of course, the reasons overlap.

Transitions into retirement are major life events, too complex to be easily defined or predicted, and influenced by public policy given the size of the population in retirement age and the variations in people's health, socioeconomic background, job prospects or relationship to work, among others (Munnell et al., 2015). Nonetheless, a more nuanced understanding of reasons guiding baby boomers' decisions about retirement in the context of a specific labor market could be helpful to imagine possible policy scenarios to promote older workers' retention. The following section offers an insight into ways local baby boomers think about their

retirement plans. The intent here is not to present a comprehensive narrative, as any attempt to average the factors that influenced career trajectories of the baby boomer generation would be futile. Instead, the intent is to identify broader patterns of retirement decision-making and, to the extent possible, differentiate them for the purpose of crafting more specific policies. Three specific strands of answers to the question when will local baby boomers retire emerged from the interviews: I will retire as soon as possible, I will never retire, and I don't know yet. The following section contextualizes these answers through the local baby boomers narratives and frames them as specific policy inputs.

4.5.1.1 “I will retire as soon as possible”

Of the 15 people I interviewed, only three – Debbie (58), Carlos (53) and Ella (56) – wanted to retire as soon as possible, and only one, Debbie, didn't plan to make room for work in her future.

Debbie, an elementary school teacher, is very clear about her retirement plans:

I'm not one of those people who retire and go looking for another job. I am going to stay at home, being a grandma, travelling, cruising. I have an aging mother, so hopefully also spending time with her. I have worked for over 30 years, so I'm going to enjoy my retirement.

Ella, a registered nurse, hopes to retire from her nursing career within a couple of years.

Unlike Debbie, Ella sees work in her future but very different from full time employment in the healthcare industry (or employment of any sort, for that matter):

I hope I never have to work full-time again, never. My goal is to live so frugal that I don't have to have a job, I just want to work as a farmer on my small piece of land. I see me raising rabbits for meat, growing lavender, baking tarts, and selling things at the farmers' market. I know I have a master's degree but I have never been career driven.

Ella's vision of retirement would probably resonate with Carlos, an elementary school teacher. Before finding his vocation as a teacher in 2003, Carlos had a number of careers from being a cook or a custodian to running a gym or providing music and video services. He worked

non-stop since high school to provide for his family, so his idea of retirement is to finally do what he wants and only work if he wants to, not because he has to:

My plan is creative laziness. It's not going to involve work or only when I feel like it. I'm going to volunteer one day a week, I'm going to do Uber and Lyft when I feel like it, I am going to travel, do the things in the house my wife always asks me about, stuff that I've always wanted to do but didn't because I'm still committed to making sure things are taken care of for my family. Yeah, I don't plan to work. I think that I've earned it, I've paid enough for social security, I've paid taxes, almost 40 years, working since I was 17 so now I get to reap some of that reward.

Creating a value proposition for people like Debbie, Ella and Carlos who can afford to retire and don't have strong attachments to their careers or work will most likely be hard if not impossible. They have a very clear vision for their retirement and are actively preparing for the transition. Losing people like Ella, a nurse specialist with advanced education, before they reach 60 is arguably bad, given the importance of a well-trained healthcare workforce for the local economy. We may, however, be tempted to argue that, as teachers, Debbie and Carlos may not be as needed, given the decline in school enrollments. But Debbie and Carlos will leave the local market with more than a surplus teaching license, they will take their education, steady employment (and tax) record, work ethics and professional experiences gained across a number of sectors. Most importantly, they will switch from active economic contributors to passive economic consumers, increasing the already high old-age dependency ratio.

Understanding the losses of early retirements on the local economy is certainly important for crafting viable older worker retention strategies. Equally important may be to help older professionals understand the worth of their human capital. Carlos, for example, is convinced that there is many more younger workers to replace him in the local labor market:

What are we, 3 million in Pittsburg or whatever it is, someone's going to replace me. They've already replaced me. There's a lot of people behind me that are coming and going to do the same thing that I'm doing. They're doing it even as we speak.

Carlos is probably alone in thinking that there will be always more entrants than exiters in the labor market. This misunderstanding – especially if shared by both employers and older workers – can significantly hinder older worker retention policy making.

4.5.1.2 “I will never retire”

Four of my 15 interviewees – Alice (52), Bill (53), Dave (64) and Irene (66) – are not planning to retire ever. Their reasons differ – especially between the two younger individuals who are more concerned with the economic aspect of retirement and the two older individuals who are more driven by their passion.

Alice, an administrative assistant, has been in her current job for about 8 years. She doesn't particularly like her job but is glad she has it and hopes it will last. Besides a short unemployment spell, Alice has worked all her adult life but never earned enough to accumulate sufficient retirement savings. She is very worried about her ability to retire:

I'm probably going to die at my desk. I probably won't retire until reach the full retirement age, that's if Social Security is still around. Unless I'll get married and rely on that person. But I honestly think I'll probably never be able to retire on this salary.

Bill, a communication professional, shares similar views on retirement. He also expects to work until he dies, partially for economic reasons. Unlike Alice, who would stop working if she would not have to, Bill enjoys working:

I'll work until I die. There is no retirement. My idea of retirement might be an adjunct professor somewhere, but I am never going to fully retire. I am going to be doing something. I'm used to working and I like to work and I couldn't see myself not getting up and doing something. But it is also because of economic conditions, I don't think I'm going to be able to afford to be retired like my parents did, because I don't have a pension. I have a 401(k) but that is not a pension.

Retaining Bill and people like him in the labor market may definitely be easier than retaining Alice who doesn't share Bill's passion for working. Still, we can assume Alice and

people like her will try to continue working through their sixties if not longer because of their personal financial situations. The question is: will their motivation to work rooted in financial anxieties be enough to sustain their employment? Or will people like Alice become discouraged by the limited potential for economic advancement at later age, especially if they experience job dissatisfaction.

Irene, an adjunct faculty and political campaign leader, and Dave, a fire department officer and an adjunct faculty, think of retirement as an administrative concept that triggers social security benefits. Neither thinks being eligible for retirement benefits has much significance for their professional life nor their career plans. Irene has no shortage of reasons to continue working:

I think retirement is just like a passé construct. I retired from [my previous company] but it definitely wasn't the end of work for me. There's no way. There's just too much to do and too much excitement out there, things to dip your finger. I mean, we're so full of potential and drive and talent and curiosity and there are so many things where to contribute. Why would we say, "Okay, now, that's over." It doesn't make any sense.

Dave shares similar attitudes to Irene toward working past the retirement age:

I'm going to work full-time until I'm 70. I have determined this with a financial planner as the right age to start using my retirement savings. But I won't be totally done working, I'll still teach if I can. I enjoy it, I still want to share with people in my field who are interested in learning.

People like Irene and Dave, accomplished professionals with advanced degrees, valuable work experiences and robust professional networks who see the need and the opportunity to stay engaged in the labor market are very important for the local economy. There may not be that many Irene's and Dave's, and the question is, can others be motivated to adapt a similar mindset.

4.5.1.3 “I will probably retire but not sure when or how”

Eight of the 15 interviewees – Helen (58), Frank (57), Beth (56), Jane (57), Carol (62), Ed (53), Fay (62), and Gwen (61) – plan to retire at some point but have no specific time horizon nor a clear idea what will they do then and how or if would working be part of it. Views of these (and other) undecided baby boomers may be particularly informative to policymakers concerned with older worker retention, as the perspectives run the spectrum from optimistic and open to possibilities to disillusioned and discouraged by employment prospects.

Helen, an administrative professional in a higher education institution and a college student, Frank, a software developer, Beth, a research center coordinator, and, Jane, a donor relations manager are not ready to retire anytime soon. All four in their late fifties, they feel too young to think about retirement. More importantly, all four are interested in staying engaged, possibly even past their retirement age, if they find the right opportunity for a meaningful encore career. In other words, they don’t just want to continue what they are doing now – having a job that pays the bills – they will stay if they find what Irene and Dave already have – purposeful professional activities that fit their talents, passions, and interests. For now, Helen’s future plans are intentionally loose:

I think I will work past the retirement age. I just don’t know what that’s going to be yet. But no, I’m definitely looking for another career after I leave here. I don’t have a definite plan because I don’t want to be limited. I have thought about even getting a master’s in arts management - I think I could very effectively manage a small theater and I could also enjoy working in a theater’s costume shop. Or getting certified in teaching because I could be good at too. Or I could go and work in a gift shop, a couple of months in different national parks. These things have all been on my radar. I’m not limiting myself in either direction.

Like Helen, Frank is clear he will retire from his job when he can but will try to stay engaged. Unlike Helen, who sees a lot of future possibilities for herself, Frank is not completely sure how to get there:

I plan to keep my job until I can feel confident financially that I can retire and shift my focus to back to the quest of something meaningful, to an encore career, that's how I see myself. It wouldn't be retirement, it would be back to trying to do something that matters, that I care about. But do I have the skills to find how to do that? I think that's honestly a very mixed bag. I recognize I need to focus more on using social networking. My biggest challenge may be that I'm missing a solid institutional base for something different, an understanding of interworking of the nonprofit sector. Moving from a software artificial intelligence corporation to some other social impact endeavor without an institutional base may be a problem.

Beth is the least driven by the idea of an encore career, but like Helen and Franks she is clear that any future professional pursuits need to be in line with her interests:

I figure I have at least 10 years to have my youngest child finish college. I am not sure what's next. I feel that I have limited time. I have three children. I already have personal interests that I've totally put on the backburner so far back that they never see the light of day. So if I'm going to allocate time towards a new job or a career it's going to be around my interests.

Jane, like Helen, Frank and Beth, is not worried about her financial ability to retire at some point. And like them, she is not rushing into retirement; in fact she plans to augment her professional activities. Jane's future plans are less driven by her interest in pursuing a particular encore career, as they are affected by her personal situation – her husband is terminally ill and will not be around much longer:

He was going to work till 67 and I was going to work till 62. We had the fairytale retirement where we would visit the kids and the grandkids and travel. Now I don't make a lot of plans. I'm here for my husband so he can stay at home as long as he can. That's a good thing. Part of me is just I got to deal with what is after he's gone. I will have a big void in my life so I just don't want to have nothing to do. Maybe I'll go back for my master's but if there's an opportunity to get a job where I'm much more engaged, busier or have to travel, that might be a good thing at that point in my life.

Helen, Frank, Beth and Jane can contribute a lot to the local economy if they stay engaged in the labor market. For now, they are steady performers, earners and tax payers with jobs in the region's key industries. They have education, skills, experiences and interests that are valued in the labor market. None of them, however, are committed to their jobs (or paid

professional activities) for too long. None of them is rich, but all are comfortable reducing their income in exchange for more fulfilling activities. While we can argue that the region can still benefit from their professional activities even if they come in the form of part-time or unpaid work, their tax capacities will not be easily replaced. As a group that have a lot to contribute, they present the greatest potential for retention in active employment – all they need are jobs that match their interests and passions.

Carol, an administrative support staff, Ed, an IT technician, Fay, a marketing and communications professional, now unemployed for close to two years, and Gwen, a part-time cashier, don't have clear plans for retirement either. Unlike Jane, Helen, Frank and Beth, they are somewhat pessimistic about their employment outlook and worry that they will have to retire before they would like due to unfavorable labor market conditions.

For Carol, the motivation to stay at work reflects financial and social reasons; she needs to and wants to work. Her health, and the unwillingness of her employer to lower her hours, however, are interfering with her motivation and may push her out of the labor market prematurely:

I think if I would be totally retired, I wouldn't know what to do with myself. I couldn't just retire and go traveling and do all of that. I mean I have a 401(k) but that's gotta last me for the rest of my life. On the other hand, working full time is getting harder. Last year I was hoping to go part time because I was getting really tired in the job. It's a lot different, they added more work to it. Well, they wouldn't let me do it despite my 11 years in this job. So I switched to a less demanding position but it was \$5,000 pay cut. That's a lot. Well, I'll try to stick it out here at that level. I think I'll probably stay as long as I can. I don't know. It all depends on how I feel physically and mentally. I get tired.

Carol worries she will have to retire earlier than she would like; so does Ed. Ed, like Helen or Frank, shares an interest in spending his end career years doing something he would enjoy and be good at. Unlike Helen and Frank who are fortunate enough to have stable

employment, Ed has been experiencing job insecurity for the last several years, doing mostly time-limited contract work. This experience made him very skeptical about his future prospects:

I've kind of stepped back a little bit trying to see what I may be doing through my future. I don't know, I have thought about that recently quite a bit because I have been through so much with employers. I'm working on ways to think of myself and invest in myself because I just don't have that faith in companies anymore that they are going to invest in me. I could see myself working another 10 years or maybe more, but I have to enjoy it and I have to build on the skills that I have. I've also thought about starting my own business, but I need the capital. I am doing some other things, I actually went back to community college and got into classes. So I am looking at other avenues but I really don't know, opportunities here are kind of bleak looking.

Fay would agree with Ed. Her retirement plans are affected by the labor market condition, rather than her own choices. She lost her job almost 2 years ago and has been unable to find a new one since.

Every time I hear them talking again about changing the retirement age, I would say out loud, to myself if nobody else, "That's great if you change the retirement age. Are you going to guarantee that people have a job until they get there?" I never thought I would be out of a job this early. Nor did I ever think that it was going to be this long. I have people say to me, "why aren't you working? I'm surprised you're not working, you're outgoing and this and that." I want to work. Just the madness of it. You know some days I don't know what to do with myself. I probably read two library books a week, so I enjoy doing that. Obviously I have been depressed. I love to travel. I travelled a lot in my job, I travelled a lot back here, now I don't want to do anything or go anywhere. It's changed me and I say I want my life back. I want to be who I was.

Gwen experienced a similar turn in her career trajectory like Fay. She, too, lost her steady, upward trending and well-paid career unexpectedly when she turned 60. She unexpectedly, and for the first time in her life, found herself without a job and without a plan:

I never really thought about when I would retire. I was just too busy working. I didn't think about it. I am not married so I didn't have anybody else having that conversation with me saying in 10 years we are going to retire, that kind of thing. I just kept working. Now I need a plan but I don't want to completely limit myself. It's not like I'm putting it off till the end. I am thinking where do I still want to go professionally, what do I want to do and how do I get there.

Gwen is little bit more optimistic about her future than Fay. She has a part-time cashier jobs and spends a lot of her time volunteering, networking and taking online courses. She hopes that she will find at least a better job if not a new encore career so she could use more of her skills and expertise. Fay would, however, point out that that's what she was doing when she first lost her job but could not sustain her enthusiasm and hope past the first year of countless job application rejections and continuous unemployment.

Retaining Carol and people like her may be much easier than retaining Ed, Fay or Gwen. There are enough models of flexible employment arrangements such as part-time work, job sharing, or additional time off that have proven beneficial to both employers and workers in accommodating health or similar issues (Henkens, Remery, & Schippers, 2008). The challenge may be more in motivating companies to use these tools more actively and systematically for older worker retention purposes. Viable approaches for retaining Ed, Fay, Gwen and people like them are, however, not as readily available. Ed, Fay, Gwen – professionals with marketable skills and a track record of strong earning capacity who experience late-career shocks – say there are not that many good jobs in the local labor market and that their age makes them less appealing candidates to hiring employers. The next section examines more closely these two issues – perceptions of job availability and age as a factor in finding a new job – from the perspective of the local baby boomers.

4.5.2 Do older workers see viable employment opportunities for themselves?

The vignettes from the study participants' views on retirement suggest that there may be a larger number of baby boomers who are motivated or open to staying professionally active past their retirement age than those who don't have strong attachments to their careers and can afford to

retire sooner. Retaining the motivated baby boomers to continue working should therefore be relatively easy as long as there are accessible and viable employment opportunities for them. That is, there are jobs that match their skills, interests, and health capabilities, and that hiring employers have no biases against aging workers.

The labor market data presented in section 3 suggest that the local labor market conditions are not particularly favorable to aging workers. Only about 34 percent of older workers are employed in occupations with above average wages. About 53 percent are employed in occupations projected to decline. The occupational clusters that are projected to grow above the region's 4 percent job growth rate and that also pay above average wages employ only 16 percent of older workers. Twice many workers over 55 than 15 years ago experience job changes and almost 60 percent of those getting a new job end up in low paying industries.

These statistics could explain the differing local and national rates of baby boomers' willingness to work past the traditional retirement age. Nationally, almost 19 percent of those over 65 were employed in 2015, a significant increase from the 13 percent in 2000 (Desilver, 2016). In comparison, locally, only 14 percent of those over 65 were employed in 2015, and nine percent in 2000. The next sections summarize the perceptions of local baby boomers of labor market conditions and their perspectives on future employment prospects.

4.5.2.1 “Not all my skills are valued or recognized in the local market.”

Most of the study participants admitted having a limited understanding of job opportunities. While many could describe the major industry sectors in the area, most of them did not have very specific knowledge of jobs and skills currently in demand. The baby boomers I interviewed were actually not very concerned about not having these details. Most of them believed both their life and work experiences equipped them with broader and more versatile skills that can be applied

across many occupations. And they rarely identified themselves in terms of a narrow occupational category – they have done many things in their 30 some years of work experiences and could imagine themselves working in a number of different occupations. Some of them suggested that while this is one of their greatest advantages, it can be easily disregarded or overlooked by supervisors or hiring managers who look for a perfect job-person fit in a narrow sense of particular skills or those who never experienced the depth of competence that only comes with age.

For example, Helen, an assistant in a higher education institution who has been repeatedly recognized by her superiors for her tremendous contributions, was denied for promotion until she finishes her college degree. She accepts that, but believes that her life and professional experiences should count more:

I think you should be able to get some recognition for life experience. For instance, there is a leadership certificate that's available, and I've taken all the leadership courses except for this freshman leadership thing, which is an intensive weekend which you go and do these team-building skills and take personality assessments ...well, I taught that in my previous job. I don't want to spend a weekend with a bunch of 18-year-olds. So I asked for a waiver, but the person in charge is like, "Oh no, you couldn't skip that". It's ridiculous. I will say though if you can take three teenagers on one vacation as I have done several times and have everybody happy, there's a lot of leadership involved in just that.

Frank, a software engineer, while not necessarily worried about employment opportunities in his field, does worry about the ability of those managing projects he works on to recognize his expertise:

Do I worry about age factoring into my career prospects - yes, just because of the youth of most of the people being hired and the self-confidence that comes with of being young. They do not have the same reference points of experience as I do, and therefore are often not able to value lessons that I have learned a long time ago, that they're still going to have to learn the hard way. So being managed by those in the computer area is a worry.

Frank and Helen are frustrated with their younger colleague's ability to recognize and better utilize skills and competence they accumulated through diverse lived experiences. Bill, a communications professional, would probably echo some of their feelings. He feels very underutilized in his current job and thinks his skills and past accomplishments fit the expectations of executive level jobs and his current pay is at least 40 percent below his market value. Jane, a donor relations manager, points out the lost opportunities

I think there are a lot of people like me in who are underemployed. We're doing day to day activities not that are mindless but we are capable of doing much more. I would love to do more, it would make me more engaged and it would benefit the employer as well. But also it would motivate me to work a few more years contributing to my social security.

For Helen, Frank, Bill and Jane, and people like them – currently employed individuals who are not rushing into retirement – these misunderstandings or misrepresentations of their capabilities and experiences by their younger coworkers and supervisors contribute to underemployment which in turn leads to job dissatisfaction. This is an important dynamic because job dissatisfaction represents one of the most powerful driver of early retirement (Cahill et al., 2015; Van Solinge & Henkens, 2014).

The fact that diverse and complex professional experiences of baby boomers do not often fit neatly advertised job opportunities complicate re-employment of older workers who lost their jobs. Considering the length of work experience alone, most of baby boomers have around 30 years of work experience, if not more. Yet, out of the current 40,000+ online job postings in the Pittsburgh region, only about three percent require work experience over nine years (Burning Glass Technologies et al., 2016). As a result, older unemployed professionals experience both confusion about available opportunities and about their own labor market value (Antonovics, 2012; Cummins et al., 2015; Rothstein et al., 2011).

Ella, a registered nurse, for example, quit her job a while ago to take care of her dying parent. After her mother passed away early this year, Ella started to look for a job. As an experienced RN with a graduate degree, she didn't worry about getting back to work. To her surprise, she was not getting any responses to her job applications. After six months of fruitless search, she sought out the help of an employment coach:

He helped me understand that if I want a job I have to create a dummy version of my career. He said: "You really have to scale your resume down, because they may see, for example, that you have a master's degree and they think you are not staying here, you just need this job as a stepping stone." He didn't say I need to be a liar but that I only tell them what they want to hear, that I have what they need but not too much beyond that or other skills that don't fit. That's beyond sad. But my resume got redone, I started to get invites for interviews and got three job offers in one week.

Fay, an unemployed marketing professional, has been looking for a job for over two years. She has received similar advice and has taken the first 10 years of her work history out of her resume while downplaying many of her later accomplishments and responsibilities. She is frustrated by both having to do this and still being overlooked by hiring managers looking for the exact job-skill match:

I am looking for jobs that are related to what I used to have. Obviously I don't expect necessarily to walk into a director of marketing job. A manager of something within a marketing department, yes. People say well what about transferable skills and blah, blah, blah, blah. That's a bunch of crap too because if somebody has a job to fill, there is a line of people with specifically that kind of experience, so who is going to look at my transferable skills?

Gwen, a displaced executive with a part-time cashier job encounters similar challenges as Ella and Fay. She adds that a part of the problem is also the fact that she herself is not always sure how to present all her experience as a good fit for whatever job she is applying, and how to have conversations with employers about other benefits that she, as an older worker, could represent for the company:

It's hard to make younger people understand what you can bring. First of all, it's hard to make yourself understand what it is that you can do for an employer based on what you did before and how to make it more what they're wanting. So I think that's a barrier.

Gwen is pointing out an important aspect of the challenge aging professionals seeking a new job or an encore career need to deal with – making sense of their own often complex and not neatly organized professional histories while coming up with an easily understandable value proposition for hiring managers. For those who enjoyed steady careers without many disruptions this can be a daunting task. People like Gwen and Fay, professionals who experience unemployment for the first time and in their sixties, warrant a special attention of policymakers concerned with older workers retention strategies. They are being pushed out the local labor market prematurely – along with their earning and tax paying capacities – not because their skills are sub-par but because they may be too complex to fit in.

4.5.2.2 “There are no good jobs in the Pittsburgh labor market.”

Some baby boomers I interviewed are struggling with more than employers’ lack of understanding of their backgrounds. Especially those whose careers were disrupted by unexpected layoffs – Fay, Gwen, Ed and Alice – are experiencing the local labor market as bleak and are not too optimistic about their employment prospects.

Fay is exhausted by her two years of unemployment during which she sent countless job applications, attended job search, resume preparation and interviewing skills seminars, engaged in online skills learning, and volunteered for several organizations. She has very little confidence in the conditions of the local market:

I never thought I would be out of a job this early. Nor did I ever think that it was going to be this long. I don’t buy how great the local economy is. If the unemployment rate was really only five percent then I would be working. And I think that because there is such a pool of people outside of my age category, that if there is a job somebody else is getting it, certainly not me. I am barely getting an interview.

With only a year into unemployment, Gwen is slightly more optimistic than Fay. For the past 33 years, Gwen worked in a quasi-governmental agency. Over the years she experienced steady professional growth and ultimately became the agency's president. About a year ago, her board suggested it was time for her to retire. Gwen had not expected such an early and abrupt end to her career. After a few months of a fruitless search for full time employment, she settled for a part-time cashier job in a home improvement retail chain:

People ask me why that job. Well, I just thought I've got to get something. I applied for all kinds of different jobs, but this is the only place that called me back – after three or four months. I just figured that this could be a start and maybe there'd be opportunities in management too. I continue to apply for other jobs but only got two phone interviews.

Ed has also experienced an unexpected layoff from his job in banking in his late 40s. He took the layoff as an opportunity to retool himself as an IT technician but has not been able to secure full-time permanent employment:

Well, after I finished the training, I started working through agencies. Generally, the contracts were under maybe 8 weeks. Then you get laid off, and then you wait a couple of weeks. It's not like permanent work. Some assignments are more technical but others not really. Like companies that had maybe what they call deployment tech where they'd get new computers and you set them up. Very small projects, only a couple of weeks. I was, to be quite honest, I was disappointed about trying to obtain any full time employment position in my new field. It's pretty tough.

Ed does not think his experiences are related to his field, he doesn't think that changing a profession or undergoing another round of retooling would help. Rather he sees lack of good employment opportunities across the entire labor market:

In my opinion the labor market is very bleak. There are people working but from what I see, it's either real high level positions or real low positions. Then you've got the people in the middle like me who has experience and education but are kind of stuck there. I think, from my experience, a lot of people are working two or three jobs like me. Getting barely above minimum wage. They are just burning the candle at both ends.

Alice, an administrative assistant in a global manufacturing firm, and Carol, an administrative support staff in a mental health facility, would agree with Ed that there aren't that many opportunities outside the low end job market. Alice tried to move up to a better paying job in both her company and outside. She feels very discouraged about her chances to advance:

In my department the only thing that I could do higher is the senior admin position which no one can give me a reason why I cannot be promoted after eight years here. I've gone to the Head of HR and said, "Why?" She looks at me and says "Well, I don't know..." It's a private company and they pretty much do whatever they want to do there. There are other jobs in the company, IT for example, and I have worked for a technology department before. But honestly, the field that I am in and the people that I work with, they don't give women in general much credit. I have also applied for other jobs outside of this company but I did not hear back from anyone, not even, "Thank you for this..." Nothing. Nothing at all.

Carol have been working for her company for almost 20 years. Last year she had to switch to a lower paying job which made her really worried about her financial situation. So she started to look for a new job outside of her company thinking she has a lot of skills that may be used elsewhere:

I don't really know why I was not getting any responses to my job applications. I have very good resumes. I always keep that updated. It was just something you never know, you could lose your job. So I always get that updated. I got some interviews. I kind of think they went well. But I didn't get any job offers. Well, so I will have to try to stick it out here at that salary level.

Alice and Carol's interpretation of them not getting positive response to their job applications is that there are simply not that many good jobs in the region and the employers in their industries don't value the length of experience they both have to offer.

4.5.2.3 "My age is why I can't get a job."

Literature on aging provides ample evidence of persisting age discrimination and prejudice against older professionals despite the significant growth of older workers in labor markets (Beard et al., 2011; Beck & Quinn, 2012; Golding, 2011; Hennekam, 2015; Rutledge, Sass, &

Ramos-mercado, 2015; Tomlinson & Colgan, 2014). The perspectives' of the local professionals I interviewed were twofold. A somewhat smaller group was feeling strongly about their age (or rather employers' biases against older worker) being the biggest barrier in their career success. Others had less direct experiences with age discrimination but equally worried that at some point they will be seen as too old to be considered by hiring employers. Perhaps not surprisingly those that experience or perceive age discrimination are the same people who are the most frustrated with the local labor market conditions and struggle to find or maintain a good job. Alice, an administrative assistant, in her early 50s, for example, is one of those people believing age is the key limiting factor in her future employment prospects:

A lot of people are like, "You can go out there and make so much more money...", but being over 50 there's not a lot out there for me. I'm not getting responses back on resumes but I have the skills and experience. I mean I've talked to a lot of people and they're in the same boat as me, you hit 50 and people don't want to hire you anymore. Can you tell how old I am from my resume? Yeah, probably if you see my work history...yeah. I think if I walked into an interview and there is a 20-something girl versus me applying for the same job, I guarantee you they'll hire her first. Guarantee it.

Ed, an IT technician, also in his early 50s would agree with Alice. Ed is convinced he lost his career of a banking professional due to the company's interest to make the employee base younger:

I knew what they were doing. They were bringing in young people in. I won't say more skilled, I'd say maybe they might even have been paying them more, not much more but a little more and because it was fresh meat, so to speak. They wanted that freshness because their employees were getting older.

Ed also believes his inability of securing a full-time, permanent position is because his age and employers' preferences for younger talent:

I've gotten interviews and then never heard back for whatever reason, whether it is age or it is experience. But I do think companies look at age. Whether there is discrimination, however, it's hard to prove it.

Fay, an unemployed marketing and communications professional in her early 60s connects her struggles to find a job to both the conditions of the local labor market and to age discrimination. She actively hides parts of her professional history from her resume:

My employment situation is very age related. The older I got the longer it took to find the next job. Of course when I started my last job I was in my early fifties. Now it is harder. I even took a half of my career off my resume so nobody could tell how old I am.

Ella, a registered nurse in her late 50s agrees with Fay on the necessity to disguise age during job application process as she experienced getting more job interviews when she followed the advice of her career coach:

I remember saying to him that I had twenty plus years of experience in nursing and he said “No, no, no, no, no, you don’t want that, you never go over 15 years, 15 plus, that’s what you put there. Never do anything that indicates how old you are on a resume. Well, he was right.

Gwen, a part-time cashier in her early 60s who recently lost a life-long career and is actively looking for a full-time professional job does not have a clear evidence of how much her age factors in employers’ willingness to hire her. She does believe, however, that employers are unnecessarily stereotyping older workers as more expensive:

It's hard to say if older people are discriminated by employers. But I think they can pretty much tell from your resume and how many years you've been in the labor force, how old you are. And they think we are more expensive but we may actually help them to become leaner. A lot of us don't need health insurance and that could be a savings. We don't necessarily need to work 40 or 35 hours. We don't have to be full time. We could work from home – and those are things that would benefit employers cost-wise.

Overall, the study participants were expressing mixed feelings about age issues. Most of them did not feel their age was preventing them to work, engage in new professional activities, learn new skills, or even change careers. On the other hand even those who did not experienced age discrimination were expressing worries about employers’ openness to consider older workers for their open jobs. Most often their source of evidence included experiences of their family

members and friends but also situations they witnessed in their own workplaces – from majority of hires being of younger age to the style and tone their HR departments communicated employment opportunities. Stressing, for example, attributes that are typically associated with younger age such as eager, enthusiastic, energetic or fast-paced. Interestingly, I asked all the women without advanced education in my study what, if anything, was hindering their employment prospects – their age, lack of advanced education or being a woman (the typical factors linked with labor market discrimination) – and they all ranked age way above the two other factors.

4.5.3 “I may stay longer if I see opportunities, not if I need to work”

Majority of the local baby boomers I talked to are open to working past the traditional retirement age but only a few have actually committed to staying economically active. Those undecided are cautious. They seem to have genuine interest in staying active and investing in their careers especially if they can bring their professional endeavors closer to their personal passions and interests. But they do not always trust the local market will provide these opportunities to them or that the local employer will be supportive of their late career pursuits. Many feel that their complex professional experiences are at best misunderstood by younger professionals if not altogether devalued, which in turn affects the baby boomers’ motivation to stay professionally active.

The perceptions of the local employment opportunities varies among the baby boomers. Those who have experienced late career shocks are especially discouraged by the local conditions and have little faith in their ability to restart their careers. They often feel discriminated and unrightfully disregarded by the local employers. Earnings and personal

economic situation matter in retirement planning but worries about the ability to retire don't seem to be always coupled with current earnings. Rather they reflect a broad range of issues including people's family situation, health, living standard, and past career patterns among others.

4.6 RECOMMENDATIONS AND CONCLUSION

The local data stipulates that by 2020 the cohort 60-69 years old will surpass the cohort of 15-24 year olds by 37,000. In other words, the number of local people transitioning to retirement will significantly outnumber the number of young people negotiating their ways into the local market. To sustain its economic prosperity, the region needs to do both attract new workers from other areas, and prolong the working lives of older workers (Burning Glass Technologies et al., 2016). Traditional policy approaches to older worker employability focus primarily on labor market retention by eliminating mandatory retirement age or increasing the age of eligibility for retirement benefits. These interventions alone will not sustain the economic productivity of older workers in local labor markets that do not offer diverse and viable employment prospects to aging professionals.

There are two specific aspects of the region's labor market dynamics that present opportunities for older worker retention. First, in comparison to the steel-based economy through the 1980s, the current Pittsburgh market is well diversified in terms of industry sectors and occupational makeup. This protects the regions against sudden economic downturns typically caused by a collapse of a specific sector (the offshoring of textile industry, for example) but more importantly, a diversified economy affords broader employment opportunities to people of

diverse backgrounds. Second, most of the aging professionals are not rushing into retirement. Local baby boomers draw many benefits (economic, psychological, social, health) from their professional activities, and most of them continues to see themselves professionally active for a while.

The conditions of the local labor market are, however, not necessarily stimulating of strong older worker retention. Employment of older workers in the Pittsburgh region is concentrated in lower-paying occupations. More importantly, the increasingly more frequent job changes among those over 55 often result in a pay decrease. Although decreases in older workers' earnings are often stipulated as a factor that delays retirement base on the assumption that low earners can't afford to retire (Munnell et al., 2015), among the people I interviewed, low earners were one of the most discouraged workers, with little confidence that prolonging their employment would make much difference. Helen, a 58 years old assistant in a higher education institution, provided an example of why low earnings may leave people to early retirement:

Just recently, my chair came to me and she said "Why is our secretary retiring at 62? I don't get it." So I said "we make so little. Once you hit 62, it costs you money to come to work. So why would you come to work when you can get a half of your husband's Social Security at 62?" It's more than they're bringing home working full time. It fiscally doesn't make sense to get in your car and drive here and pay the parking and stay all day.

Helen points out the shortsightedness of the argument that low wage job market may be more conducive to older worker retention. In the Pittsburgh, the average monthly wage of those leaving their jobs at 65 is about \$2,500 a month, the average monthly earnings among all workers are about \$4,150. Those leaving retail jobs at or after age 65 (about 12% of all job leavers in this age cohort) earn approximately \$1,400 a month.

A part of the older worker wage challenge is the fact that involuntary job losses are often hard to recover from (Krueger, Mueller, Davis, & ŞahİN, 2011; Munnell et al., 2015). Among the local professionals I interviewed, none of those who lost their jobs after 50 regained employment of comparable quality. Most ended up in long-term unemployment or took a job significantly below their skills, education and previous pay-level. They felt discouraged by the lack of employment opportunities and are more likely to retire prematurely. Among other important detractors of older worker retention are aging professionals' perceptions of age discrimination and employers' undervaluing of their life-long professional experiences and skills.

Retention strategies are critical to slow the consequences of rapid aging and to improve the economic prospects of all generations (Denton & Spencer, 2009; Eichhorst et al., 2013; Samorodov, 1999). Maintaining older workers' earning power and employment until and past the traditional retirement age will – in the Pittsburgh area – depend on simultaneous strengthening the quality of jobs, and removing factors – such as that lower interest, willingness or ability of older workers engage in new career learning.

5.0 SECOND STUDY: AGING WORKERS AND CAREER LEARNING

5.1 INTRODUCTION

By 2020 the total population of the Pittsburgh Metropolitan Area will be close to 2,362,000. The cohort 60-69 years old will be 345,000, which will surpass the cohort of 15-24 year olds by 37,000. In other words, the number of local people transitioning to retirement will significantly outnumber the number of young people negotiating their ways into the local market. To sustain its economic prosperity, the region needs to both attract new workers from other areas, and prolong the working lives of older workers (Burning Glass Technologies et al., 2016).

Retention strategies are critical to slow the consequences of rapid aging and to improve the economic prospects of all generations (Denton & Spencer, 2009; Eichhorst et al., 2013; Samorodov, 1999). The traditional policy assumption is that older workers can be incentivized to continue working past retirement age by removing barriers such as mandatory retirement age or establishing flexible work arrangements. These policy approaches, however, do not account for older workers' willingness to continue to invest in their careers either by learning new skills or by occupationally reinventing themselves in situations after their previous occupations have become redundant in the local market.

Currently in the Pittsburgh region, only 2.2 percent of those 50+ years old (approximately 13,400 people) and only about 8 percent of those 40-49 years old (approximately 23,500 people)

were enrolled in post-secondary educational programs (National Center for Education Statistics, 2016). Maintaining older workers' earning power and employment until and past the traditional retirement age will depend simultaneously on strengthening the quality of jobs, and on supporting older workers' the willingness and ability to engage in new career learning so they can keep up with occupational shifts and skill changes.

One key challenge policymakers and institutions face in their attempts to address aging-related labor market challenges is the lack of historic examples available to guide decision making (Bloom et al., 2014). The current workforce demographic with the number of older workers surpassing the number of younger workers is unprecedented. Collectively, we know very little about career decision-making of older workers around or past the traditional retirement age. Are they still interested in investing in their careers, and if yes, to what extent? Are their investments more likely to be driven by financial or personal reasons? Are they more likely to experience the current labor market conditions as restrictive or enabling their career pursuits?

So far research on older workers has established strong evidence that career related learning in later life is strongly influenced by its experiences early on (Findsen & Formosa, 2011; Rutledge, Sass, et al., 2015). Those whose careers benefited from investments in education in the past are more likely to be active life-long learners and to seek out (even in later age) education or training when their careers stagnate or struggle. Looking at the past career learning trajectories of older workers is therefore equally important as looking at their current efforts and future plans in order to create a more nuanced context from which policies aimed at older worker employability can be made. To that end, this study looks at how aging workers in the Pittsburgh labor market negotiated their careers and career learning throughout their professional lives

under changing labor market conditions. It highlights possibilities for policy makers and educational institutions interested in supporting career learning of older professionals.

5.2 STUDY DESIGN

I conducted this study as contextualized narrative analysis (Fenwick, 2012; Kirsi LaPointe, 2013; Mertens, 2010; Russell, 2011) to offer authentic accounts of older workers' career learning trajectories from the time they graduated high school. I especially focused on when, how and what choices on engaging in career learning they made throughout their lives, and how these past experiences shaped their current career learning efforts and future plans. I contextualized the participants' narratives in two ways – through national trends generated from studies on the baby boom generation (today's older workers) and through local labor market statistics. I used the national and local context intentionally to validate the data collected from the relatively small number of participants, and to present a more complex view of aging workers' attitudes toward career learning.

The guiding question of this study – How have previous learning and career experiences of aging workers in the Pittsburgh labor market shaped their current learning efforts and future learning plans? – aims at creating a better understanding of the perspectives aging professionals have toward career learning at a later age and ways their learning can be better supported by public policy and educational institutions.

5.2.1 Theoretical and conceptual framework

This case study is anchored through the tenets of career construction theory (Savickas, 2005). It looks at reasons and ways that individuals (re)construct their careers. This theory understands careers as fluid constructs created through people's meaning-making. It uses a constructivist lens to incorporate issues of vocational identity, life themes, and career adaptability. It also acknowledges context and agency as components of dynamic and not always fully-rational process of career decision-making. In the career literature, career construction theory is part of a larger discourse community studying careers from "other-than-rational perspectives" (Murtagh et al., 2011). These approaches view career choices and identity as socially or culturally inscribed rather than as psychologically determined (Stead & Bakker, 2010). That is, people's careers are much more driven by social and cultural context than by people's inherited talents or personality traits. They also dispute the level of rationality of career related decision-making by providing evidence of people's tendency to settle for good rather than optimal career outcomes, especially in times of increased labor market volatility (Del Corso & Reh fuss, 2011). Using career construction theory to frame this study allows to generate a richer understanding of ways older professionals make sense of the role of career learning in their careers while attending to their own career interests, attitudes, life demands, and vocational identity (S.-J. Kim, 2013; Lee et al., 2014; Russell, 2011; Stebleton, 2010; Zacher, 2014).

Conceptually, my research relies on the assumption that older worker retention cannot be simply regulated by the traditional policy instruments such as increasing retirement age. Instead we need to ensure good employment opportunities exist, people see value in working longer and they have the right skills. This study focuses on exploring aging professionals' attitudes toward

career learning using three conceptual anchors – accounts of local participants’ professional journeys, national trends on career learning pertinent to the baby boom generation, and local labor market dynamics.

5.2.2 Data

In this study, I used narratives of 15 local individuals 50 or more years old, working or looking for work. This sample was not intended to achieve statistical validity and to generalize the study’s findings as relevant to the entire population. Rather, it served to portray diverse ways aging professionals look at career learning and how their learning experiences shaped their career trajectories and future career plans. The size of the sample, therefore, was created out of a commitment to reaching a meaningful level of saturation rather than statistical validity, to creating a useful portraiture rather than a generalizable pattern. Table 4 provides a detailed summary of the participants. I used pseudonyms to protect the participants’ privacy.

I recruited the participants through an ad distributed through a local network of agencies that serve workers and job seekers. This network includes post-secondary training institutions, workforce development agencies, and career centers. In addition, I used my LinkedIn network of close to 500 individuals to distribute the ad. The call for participants was open for approximately one month and I received interest from 21 individuals. Two of these individuals did not meet the selection criteria and an additional four were ultimately unable to commit to the in-person interview. Two thirds of the study participants were women. While I strived for a more balanced sample, men were not as interested as women to participate in the study. The feedback I received from the agencies I relied on to distribute the call for participants included the stipulation that

men are less interested in sharing their stories (especially when/if they include unwanted struggles or failures) and that they are also less likely to pay attention to the ad itself.

Ultimately, I engaged ten women and five men and collected fifteen narratives through approximately 60-90 minutes long in-person, semi-structured interviews. I let the participants walk me through their career history and future plans, and, in particular, their career learning experiences and decision-making. I conducted the interviews from a biographical perspective (Kaufmann, 2006). That is, I encouraged the study participants to describe their career trajectories as they understood them now. This approach supported the expectations of the career construction theory that guides this study. It created the opportunity to capture not only facts but also and more importantly the ways study participants made sense of their own career histories and future career directions (Del Corso & Rehfuss, 2011).

Table 4: Study Participants

person	age	post-HS choice	career learning driven by	career progress credited to	returned to school as working adult	reason for returning to school	highest education	current employment situation
Alice	52	military	employer	on-the-job learning	twice, late 20s/early 30s	career advancement	associate's degree	employed, struggling to advance
Bill	53	work	desire to advance	formal education	several times, late 20s to present	career change and advancement	doctorate degree	under-employed, hoping to advance
Carlos	53	college	employer	formal education	once, early 40s	career change	college degree	employed, enjoying his job
Ed	53	work	desire to advance	formal education	once, early 40s	career change	post-secondary training	temporary job, struggling to advance
Beth	56	college	personal interests	experience	no	N/A	college degree	employed
Ella	56	work	desire to advance	formal education	twice, in her 30s	career change	graduate degree	employed
Frank	56	college	personal interests	informal learning	no	N/A	college degree	employed, enjoying his job
Jane	57	college	desire to advance	formal education	once, in her 50s	career change and advancement	college degree	under-employed, hoping to advance
Debbie	58	college	employer	formal education	once, early 40s	career change	graduate degree	employed, enjoying her job
Helen	58	work	desire to advance and personal interests	on-the-job learning	once, from late 40s to present	career change and advancement	high school, pursuing college degree	under-employed, hoping to advance
Gwen	61	college	desire to advance	experience	no	N/A	graduate degree	long-term unemployed
Carol	62	work	employer	on-the-job learning	once, early 30s	career advancement	high school	employed
Fay	62	college	desire to advance	experience	once, early 40s	career advancement	graduate degree	long-term unemployed
Dave	64	work	employer and personal interests	experience, formal education	several times, late 50s to present	career advancement	doctorate degree	employed, enjoying his job
Irene	66	college	personal interests	experience	once, mid 30s	career advancement	graduate degree	part-time employed, enjoying her job

5.2.3 Data analysis

I analyzed the narratives through NVivo 11, qualitative software that allowed me to organize, manage, code, and visualize data, and capture emerging themes. The narrative analysis (Mertens, 2010) incorporated methodological principles of grounded theory (Snyder, 2012) to identify the main themes surrounding older workers' experiences in negotiating their career learning. I examined the captured emergent themes through the constant comparative method (Moon, 2011). That is, I compared every new theme to the previously coded material to capture common properties or relationships between them (Harry et al., 2005). After the initial open coding, I continued with axial coding that explored the commonalities among codes along specific axes (Liu et al., 2012).

I present the major themes chronologically, starting with early stages of career learning as experienced by the study participants and moving through their mid- and end- career stages. For each stage, I set the broad context using national, publicly available data. Then I present the key themes that emerged from the interviews using direct quotes from the study participants. The direct quotes were carefully curated to serve as portraiture of a major theme, and also to directly represent the voices of local aging professionals. I conclude each section with quick summaries highlighting issues particularly pertinent to possible policy making.

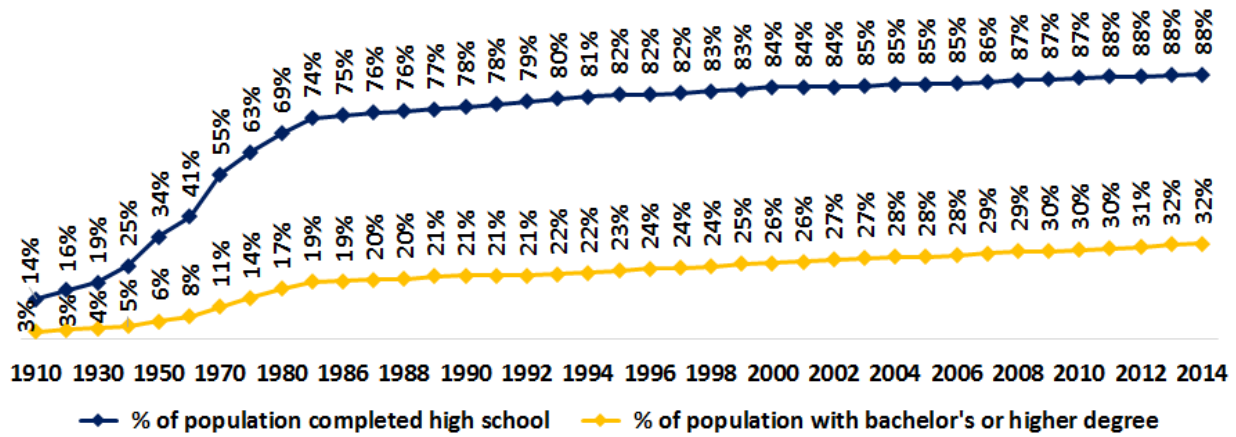
5.3 CAREER LEARNING AND AGING PROFESSIONALS

5.3.1 Career beginnings – national perspectives.

Today's older workers – the baby boomer generation – are very different from other cohorts. They are the largest generation by the number of births, they are also both better educated than their predecessors, and more professionally diverse and more experienced than their successors (Taylor, 2014). Baby boomers are known to bring about new, unprecedented workforce trends. For example, they significantly augmented the national labor force. In 1970, the cohort of 16-24 year olds accounted for more than 53 percent of active job seekers as opposed to 33 percent for the same age cohort twenty years later (Ports, 1993). They also brought about a new level of diversity in the American workplace, mainly due to the radical increase in women's labor force participation. And most importantly, they dramatically raised the educational attainment of the workforce and more than tripled the share of college educated workers, from 6 percent in 1950 to 19 percent in 1985 (see Figure 16).

In comparison to both their older and younger cohorts, baby boomers are unusually well educated. (Burtless, 2013). They grew up with a strong belief in the value of education and relied on educational attainment to develop their professional identity (Sandeen, 2008). Almost 89 percent of the baby boomers have attained high school degrees, while 31 percent of them have gained college or higher degrees.

Figure 16: Educational Attainment Trends (1910-2014), USA



Data source: U.S. Census Bureau, 2015.

5.3.2 Career beginnings – local perspectives.

Locally, baby boomers started to launch their careers amidst the most radical changes to the landscape of employment opportunities in the Pittsburgh region. The region's economy, built on steel production and manufacturing, collapsed in the late 1970s, resulting in a loss of 100,000 manufacturing jobs with corresponding layoffs in other sectors (Bednarzik & Szalanski, 2012). With over 212,000 unemployed workers, the unemployment rate reached 18.2 percent in January 1983, almost 8 percentage points higher than the national rate (Briem, 2008). These events significantly influenced career trajectories of local baby boomers, who were then youth making career choices or young adults negotiating their first jobs. All but one of the people I interviewed were born and raised in the region. Some of them left for a period of time but came back. In their accounts of professional endeavors, they continued to reference the steel industry collapse as an important context in which they formed their career identities and approaches to career learning.

Two specific career-framing themes emerged from interviews of now aging professionals who experienced the late 1970s and 1980s in the Pittsburgh areas as young adults – “get educated” and “follow both the opportunities and your passions when choosing your education and career”. Interestingly, both themes – but much more the second – continue to be important influencers of career learning attitudes and decisions of the aging professionals I interviewed.

5.3.2.1 “Get educated”

Of the 15 people I interviewed, eight study participants went to college right after high school graduation, most as first generation students. Additionally, all those who joined workforce after high school, and most of those who went to college, went back to school as working adults. At the time of the interviews, all but two were considering themselves as active learners. Only one study participant – Carol – did not achieve any formal post-secondary credentials.

Debbie exemplifies the decision making of those entering college right after high school. She graduated from high school in 1975. Nobody in her family had attended college, but her parents insisted that education was becoming the critical differentiator of employment possibilities. They did not push Debbie to choose any specific major, she could do anything she wanted as long as she got a college degree.

Going to college wasn't my decision. I was told by my parents that I had to go. I wanted to be a hairdresser. They said, “As soon as you graduate from college.” I said, “I was going to be a singer,” they said, “You can do that right after you graduate from college.” So, not going to college wasn't an option for me.

Most of the study participants agreed that it was the strong encouragement of their parents experiencing first-hand the demise of the steel industry that made them pursue higher education. Bill who graduated from high school 1980 received the same advice from his parents, but it did not resonate with him:

To be honest, I still saw there were all kinds of manufacturing jobs that paid a living wage. And my goal was just to do what my cousins did three or four years before me, to graduate and get a job in the coal mine. I wanted to work in a coal mine. Unfortunately, the steel industry collapsed and within ten years the coal jobs went away, glass factories were gone, all these jobs – gone.

Although Bill was not able to get a job in a coal mine after graduating high school, he did eventually find a job in a lumberyard, manufacturing furniture. After six years, he lost his job due to the continuing decline of the industry. Unlike Debbie, who got a college degree at the insistence of her parent, Bill's early career in the lumberyard convinced him to pursue education.

I was about 24, 25 when I started realizing, if I don't go to college, I'm not going to be able to sustain my employment or be able to live like my parents. I'm not going to be able to own a house, raise a family. One night I had this epiphany - I'm going to college, to become educated. After graduating college everything started looking different to me. And from that point on I started to use education to evolve myself as a person but also making myself more marketable, employable.

Bill's story exemplifies the approach to education many of his peers developed due to the restructuring of the local economy. The expectation of following the previous generations' paths of spending the entire work life in one factory was shattered. Getting a good job in the region became much more competitive and education was the way to gain an advantage (Bednarzik & Szalanski, 2012).

In recalling their decisions about education in the 1970s and 1980s, the baby boomers in the Pittsburgh region I interviewed agreed that higher education was accessible even if their families' economic situation was not great. For example, Debbie and Carlos received scholarships for minority students. Bill used dislocated worker funding to earn his degree. Fay who grew up in a lower middle class family managed to get grants and affordable loans. Others, like Alice opted to gain resources through service in the military:

When I got out of high school, I didn't have money for college; my parents died when I was very young so my choices were go to work or go to the military. So I chose military. I was in the Navy for four years, got out and used my G.I. Bill to go to business school.

Overall, the Pittsburgh region saw an extraordinary increase in educational attainment post 1980. Baby boomers entering the labor market in late 1970s and 1980s contributed to this shift toward a more educated workforce. While back then, college education was not a necessity to succeed in the labor market, many baby boomers and their families believed that advanced education would provide access to more opportunities as the landscape of jobs in Pittsburgh started to radically change (Bednarzik & Szalanski, 2012). As a result, the share of people with a four-year degree in the Pittsburgh metropolitan area rose from 14.5 percent in 1980 to 40.5 percent in 2010. In 1980, the region ranked 81st in the top 100 U.S. metropolitan areas for the share of population with a bachelor's degree, in 2010 it ranked 23rd. For comparison, Cleveland saw an increase from 15.1 percent to 34.1 percent in college educated population over the same period, with its ranking going from 75th to 54th place among the top 100 metro regions (Fee, 2013).

5.3.2.2 “Follow the opportunities and your passions”

The study participants' accounts of their school to work transitions testify to another important issue. They often navigated educational choices with a mix of pragmatism and personal passions – an approach that most if not all of them seem to have retained throughout their careers.

Fay attributed this to the lack of specific parental guidance. She came from a family of steel workers. While they were supportive of her choice to go to college, believing her employment opportunities would broaden, they had very little knowledge of career possibilities to advise their daughter. The teenage Fay, like many of her peers in the Pittsburgh region, therefore chose her path based on options visible to her at that time through her own interests and penchants.

My plan always had been to go to college, which I did. I got a Bachelor of Science, I specialized in advertising. I didn't know specifically that I wanted to be in advertising until I was in orientation at [university] and somebody put a piece of paper in front of me and said check one. I was always involved in the arts but I couldn't really see how to make a living at being an artist. So I guess my thinking, intentionally or unintentionally, was "well, advertising is pretty close to that, so why don't I do that."

Gwen and Irene are both first generation college graduates from families that did not expect girls to pursue higher education. Free from family expectations that women have to secure a career, they decided to study what they were interested in. Irene recalls her choice to study political science came from both her passion for reading and the political environment of the late 1960s and early 1970s:

I absolutely love reading, government and politics – always have. And if you think of the time, '68 to '72 was a really deep time of social change in the U.S., I just got drawn in. The real world events, you couldn't help but pay attention and so I chose to study the theory as well. In those days, people weren't clearly career focused. Most the people I know were not, we were experiencing life.

Beth had perhaps a little bit more guidance from her parents than Fay, Gwen and Irene in the sense that investment in higher education should be pragmatically tied to employment opportunities but it was still left up to her to make her choices:

So I came from a family that believed you go to college so you get a job, but first you should decide what your vocation would be. So I started out in architecture and I did that for two years. Then I realized that what I liked about architecture was the artistic end of it, the creativity. And I saw who else was in the room and I thought I'm going to be mediocre compared to these other people. So I transferred to another university and majored in art history instead.

Dave followed his childhood dream rather than parental or school advice when choosing a career.

I wanted to become a career firefighter. I was a volunteer firefighter from the time I was 16 and I wanted to choose that as a career path. But back then when I graduated high school there weren't a lot of choices for higher education for people in the fire service. However, the community college had an associate's degree in fire science and administration. So I enrolled and I completed that.

Dave's choice was not very pragmatic, there were no job openings for firefighters when he graduated, for more than three years he had to work odd jobs in different industries and even move out of the region before he was able to get his dream job as a firefighter.

Despite the uniqueness of career trajectories of the people I interviewed, those who started out by following their passions, rather than pragmatically seeking available employment opportunities, felt more optimistic about their futures. They were not spared workplace struggles, layoffs and unemployment spells or earning challenges, but they appeared to weather these storms better than those without strong overlap between their professional pursuits and personal interests.

The region's baby boomers started their careers in turbulent economic times, amidst the collapse of the steel industry, the region's employment base, and record-high unemployment. As they went about their careers, they retained some of the career attitudes developed in the beginning of their professional journeys, such as a strong belief in education and interest in developing careers around their own penchants, skills or talents. These attitudes may be important levers in addressing aging-induced workforce challenges.

5.3.3 Career advancement through OJT – national perspectives.

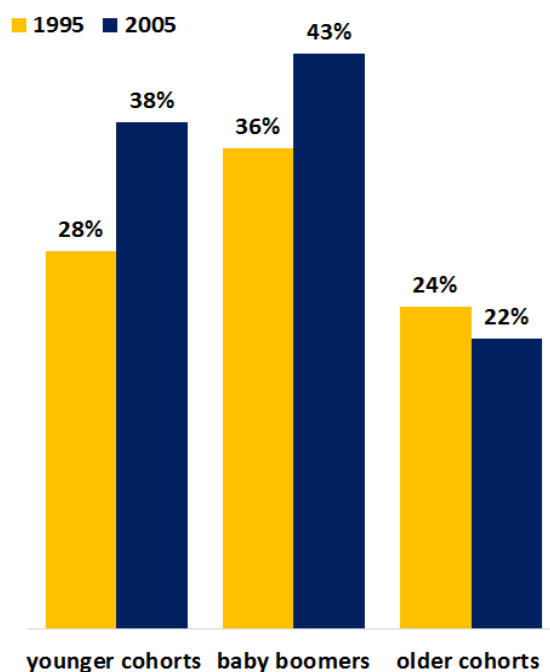
Baby boomers' early upward trending career trajectories show evidence of continuing learning. Data from the Bureau of Labor Statistics' 1995 Survey of Employer Provided Training indicate that many baby boomers participated in formal, on-the-job training (OJT). As a group, they received at that time more training from their employers than their younger and older co-workers; on average between 15-17 hours of formal training and 30-40 hours of informal training

in 6 months. Those with higher education tended to receive more hours of formal training while those with some with post-secondary training received more informal training on the job.

In addition, the participation of employed baby boomers in career- or job-related education and training during their prime-age was much higher than among their younger or older co-workers (National Center for Education Statistics, 2015).

In 1995, 36 percent of baby boomers in the labor force were participating in career and job related learning (see Figure 17); 10 years later the share of these learners increased to 43 percent. Less than a third of younger workers engaged in career learning in 1995 and even though the share of learners in this cohort increased by 10 percentage points by 2005 it didn't reach the baby boomers' levels. Older cohorts' participation in career learning remained low

Figure 17: Share of workers participating in career learning (1995, 2005), USA



Data source: National Center for Education Statistics, 2015

5.3.4 Career advancement through OJT – local perspectives.

All of the study participants experienced substantial upward mobility in their careers. And all but two of the participants experienced significant career shocks throughout their careers. They all identified career learning as one of the key forces behind their career success and their ability to overcome adverse developments in their professional lives. A significant portion of the participants' career learning happened on the job and very naturally. That is, the participants learned new skills as new work challenges, changes, technologies and situations emerged. These learning experiences became a source of professional empowerment for the study participants as well as an understanding of their preferred modes of learning.

5.3.4.1 “On-the-job learning is second nature for me”

All the baby boomers I interviewed experienced the radical shift from traditional business tools and processes to the broad use of information technology in their workplaces. For some, this was a gradual transformation to which they adapted with the rest of their coworkers with some employer-provided training. For others – especially women who took time off to raise children – the change was perhaps more substantial and required more systemic catching up through specialized courses. Nonetheless, all the people I interviewed recalled the emergence of technology in their workplaces as stimulating learning opportunity.

Carol worked in radio broadcasting and newspaper publishing when information technology started to proliferate. Her account of adjusting to new technologies in the workplace exemplified the attitude of many others I interviewed:

Early on when I first started it was all typewriters. And then eventually computers went in. I just caught on as it was coming in. We got training, they would show me – okay, in order to do this project here's how you do it. That's how I did it. I don't know. I've

always learned by hand which is easier for me because I retained it and if I make mistakes it's usually only once because then I remember, that's wrong. So I don't know. I just picked it up.

This kind of easiness about learning new things on the job – I just caught on, I just picked it up – was common among the people I interviewed. A few of them explained that learning new things and learning them fast was a way to gain a competitive advantage or strengthen their position at their company. Bill, for example, was very pragmatic in learning new technical skills to negotiate upward mobility:

When I was at the [company] for example, I was a photographer, but I was learning pagination skills on my own. And those skills really were instrumental in getting the job as a communication specialist because I went from being a photographer to a PR job in communications, that's a pretty good leap. I made that leap because I worked on developing my writing abilities and learning pagination when working as a photographer. Same way I made the leap to the middle management, it was more difficult but essentially same.

All people that I interviewed indicated that they enjoy learning new things at work, it makes them more engaged, provides a sense of accomplishment, and offers a useful feedback of their professional abilities, which in turn, motivates them to seek career advancement. Irene who held leadership positions in government, non-profit and the corporate world saw her professional accomplishments as a by-product of her enjoying learning new things at work. She said, “I have the attitude, the openness to continuous learning. So I just lean towards my curiosity.”

Based on the accounts of the study participants, learning new work skills is second nature for their generation. After all, they have experienced dramatic changes to the character of jobs, the composition of labor markets and the nature of workplaces due to trends such as de-industrialization, de-unionization, deregulation of markets, or growing trade with lower-wage economies (Handel, 2012).

Many of the study participants didn't see learning new skills as an issue. They want to learn new things and, most importantly, they know from their many experiences that they can do it well and fast. None of the people I interviewed could recall a situation when they could not manage to learn whatever they had to for their jobs. Ella summarized a popular opinion among the study participants that developing technical skills was the easy part:

I always said in job interviews when they asked me if I had a specific skill – a skill can be learned. I can learn how to do the work that I need to do, simply through practice. What you're paying me for is critical thinking, to know why that has to be done that way, to know what is indicating to me that maybe something's wrong.

Frank who taught himself programming skills would agree with Ella and others that critical thinking is key to career learning:

So essentially, the structure of my career learning in all the computer related work that I did, whether it was programming or graphic production or whatever was to figure out what I needed to know and learn it by reading or through interaction with people I was working with. The most critical skills from college that I since developed rather well and that supported my career learning in a major way were basically problem solving skills in a very broad way, being able to focus on the problem to solve.

Frank alluded to what other study participants also mentioned often – that critical thinking and problem solving appreciates with age and experience, which, in turn, stimulates career learning. As there is more context to draw from, the older professionals I interviewed were less concerned about acquiring a particular skill but more intrigued by opportunities to discover new ways of solving problems while expanding on their previous learning.

5.3.4.2 “There is no one specific way I learn new things”

The majority of the people I interviewed provided ample evidence of both their interest in career learning and their professional achievements through career learning. While not significantly, they differed in their preferred modes of learning. The most popular approaches to learning

included hands-on, through networks (peer learning), and leveraging available and diverse resources – as Jane would say, “I go get what I need from where I like”.

Hands-on learning seemed to be by far the most preferred mode of learning among the people I interviewed. There were two variations of the hands-on learning among the interviewees. Carlos, for example, noted: “I learn best by doing it. Hearing is one thing, writing is one thing, but I think it’s best if you immerse in it.” Helen would add: “For me it’s a bit of both, show me how to do it and let me try on my own. Once I get started, I’m usually pretty good at figuring things out as I go along”. Ella, as well as several others, juxtaposes hands-on learning with reading, drawing more benefits from the former:

I don’t learn so much from reading. That being said, I had to do a lot of reading, and I certainly will read but when it comes out to learning how to do somethings I’d rather you show me and then I have to do it, I have to try it myself.

This notion of Deweyan active learning was very common in the study participants’ accounts of career learning. Most of them acknowledged that they learn faster and better from direct experience in real work situations than formal learning opportunities. They also pointed out they feel more accomplished and motivated to learn more if learning is not the goal but rather a by-product of solving a new work challenge or problem.

Another popular mode of career related learning among the people I interviewed was learning from other people – either at a workplace or through personal and professional networks. Most of the people I interviewed strategically leveraged others for their own learning purposes. Beth, for example, believed that all of what she may need to learn has been already mastered by others and that people are usually happy to share:

The first thing I do when I need to learn something new is to go to my network. The first segment of my network I would go to are those people within my [department] that have the same job as me. Then I would branch out to other people in my [department] and then I would probably branch out to others depending on what it is, either people in my

personal network or people within the [company] who may also have to do what I'm doing. I'm big on not reinventing the wheel and even if you're inventing a different kind of wheel, talk to those wheel inventors to start with. And then you can apply it to your new wheel.

Jane was like Beth, strategically identifying others who can help her to learn new things when needed or get more efficient in her own job:

It's nice to have a personal contact to people who know. For example, we have a database at [my company] and I go to courses for that sometimes, but I was able to get on the phone yesterday with the woman who gives the courses for an hour. It's just nice to tap into her and say, "Mary, if I want to sort this what do I do? Or if I want to find this, how do I do it?" She knows the system inside and out because she's been here for 30 some years.

All the study participants that mentioned their professional networks as a strategic source of learning agreed that they don't actually build networks for this purpose. Irene, for example, explained: "I do a lot of social networking but it is not utilitarian at all. It's just I so generally enjoy meeting people who know stuff that I don't know."

Another preferred mode of learning among the study participants was using the internet to find information or leverage existing resources. Jane provided an example of ways she and other study participants used internet for career learning:

Right now I end up on [website] a lot. They have a blog, they do weekly videos. It's kind of a best practice thing, what people in my field are doing now. How do you interest this generation? How do you attract alums? And they do have good ideas that sometimes we can implement. I lean on them because they have more resources than we do.

All people I interviewed leveraged online resources for their work, although some more creatively than others. The participation in actual online learning, however, was not as widespread. People I interviewed were more likely to use platforms such as Lynda.com, an online video tutorial portal for a wide range of computer skills, than sign up for an online course. Platforms that enable people to learn new technical skills commonly used in workplaces at their own pace seemed more appealing than online courses for non-technical skills. Most often the

study participants explained that they like direct social interaction when engaging in more complex learning.

About two thirds of the people I interviewed had access to regular professional development opportunities either required or supported by their employers. Those with required professional development felt the demands were overwhelming and somewhat unproductive. For example, Debbie and Carlos, both elementary school teachers, are required to complete many hours of continuing education credits but estimated that only about a quarter of these trainings were interesting and useful to them. Debbie believes more autonomy and flexibility would make the required learning more productive:

I would prefer to do it online. A lot of times I think, “Oh, my goodness. This is so boring.” You know, it’s not applicable. Well, everybody has their own learning styles but as teachers we do not expect a child to sit and listen to adults for three to four hours. Adults can’t do that either. So, to do it online, at your own pace or use other modalities to make it more productive.

People with access to regular professional development but no mandatory hours or topics draw much more benefit from it. They understood it as an employment perk that should not be wasted but also as evidence of their employer’s commitment to their learning. Helen, for example, has been with her current employer for more than 15 years. She felt stimulated in her learning endeavors by both her freedom to choose what to learn and her employer’s ongoing support:

I chose what professional development I want to take. For example, I did take a leadership course recently. I think we had to do four or six classes. That was a paid class at a business school. But [my company] paid for it. You know what I mean? I signed up. So, pretty much anything that you want to take they do encourage you to take it. I think I’ve taken just about everything that they have. When they have a new thing come out, I take it.

Bill, Frank, Beth, Jane and others had similar experiences with Helen throughout their careers. Ella also loves learning new things but believes employer support is critical, noting: “It

makes sense them paying for me to learn new things because as [my employer] says a chain is only as strong as its weakest link.”

Several of the study participants acknowledged that their employers were instrumental in exposing them to new topics and skills and more importantly in adapting to new ways of learning. Gwen, for example, discovered the potential of online learning through her employer. After losing a career of 30 some years, she accepted a part-time position at a retail chain while she would be looking for something better:

It was good for me because it gave me something to do and I had to learn. They put you through a big training program. I learned a lot of things and that was good. The experience also helped me to learn online because I learned a lot and it was all online. I would always prefer a classroom but now I am doing my real estate license training online because of the experience I had with my cashier training.

The attitudes toward online learning differed somewhat among the study participants. While most of the participants frequently use online tutorials, lectures or similar learning resources, and enjoy the convenience of online learning, they tend to prefer this mode for non-formal learning. Those involved in formal education favored in-person classes, noting the broad benefits of direct social interactions and the opportunity to develop a more tangible relationship with instructors and students.

5.3.5 Going back to school as working adult – national perspectives

Although high school completion was at this time still a sufficient credential in terms of career mobility (Schaefer, 2009), many baby boomers continued to pursue post-secondary education after they joined the labor force. According to a national longitudinal study (National Center for Education Statistics, 2015), 17 percent of the baby boomers interviewed in 1979 about the reasons for quitting a job stated that it interfered with school. Currently, about 31 percent of baby

boomers have earned college degrees but only about 24 percent of baby boomers earned post-secondary credentials in their early 20s (U.S. Census Bureau, 2015). Baby boomers with higher education attainment experienced greater employment stability. For example, those with a college degree dealt, on average, with 3.9 unemployment spells in their careers while their peers with high school diploma only had to deal, on average, with 5.4 unemployment spells (National Center for Education Statistics, 2015).

5.3.6 Going back to school as working adult – local perspectives

The local baby boomers I interviewed were also actively advancing their careers through education as working adults. Career advancement and employment stability were their main reasons for going back to school. The decision-making on additional investments in education, including the timing and the mode, and the outcomes of these investments differed among those returning to education with or without an already earned college degree.

5.3.6.1 Going back to school as working adult without a college degree

Seven out of the 15 study participants did not go to college after graduating high school. One joined the military, one went to a technical school, the rest joined the workforce. By now, only Carol had not attained any post-secondary education. All went back to school, three for rather a brief period, four for a full degree or two. They all went back to school as working adults with the purpose of advancing their careers. Their decision making about going back to school differed and so did their success and the ultimate perception of the returns on investment.

Two returning students dropped out – both were women with small children and no family support. Carol went to community college for an associate's degree when she was 33. She

dropped out after a year because it proved to be too much for her, at that time a single mother with a very young child and a full time job. Alice first got an associate degree in business administration after four years of service in the Navy. She purposefully secured a job with a large healthcare provider to tap into their tuition program to work on a college degree:

I started to go back to school, I wanted to get my nursing degree. My goal always was to get a nursing degree. But I got married, got pregnant, education went out the door. I couldn't fit it into the schedule so I never finished. I always wanted to but how life came I just couldn't do it.

Neither Carol nor Alice ever attempted it again. And neither believes that their career would have been that different if they had completed their degrees. Interestingly, they were the only people I interviewed who didn't view themselves as active learners. They had no future plans that would include learning of any kind, career or hobby related, and seemed to be utilizing very narrow range of learning modes in their work. Research on lifelong learning indicates that the level of engagement in career learning at later age is highly correlated with previous participation in education. In other words, those able to access, succeed in and benefit from educational opportunity in early stages of their professional lives are more likely to sustain career learning throughout their lifespan (Findsen & Formosa, 2011; Knipprath & De Rick, 2014; Majeed et al., 2015). The examples of others as described below – especially Dave, Bill and Ella – support this notion.

Helen like Carol and Alice prioritized her family over getting a college degree. But unlike them, she did not give up on it. She waited to enter college until her children were older and she felt confident she would be able to dedicate time and energy to it. For the last 15 years she has been taking a class or two per semester and should soon graduate. While at her age not all the college material is new or relevant to her, Helen felt it was a necessary stepping stone in her career allowing her not only to advance but envision new professional possibilities. Helen is

also contemplating graduate studies, noting that being in an active learning mode for so many years now has been an effective stimulant of her professional growth as well as professional networking.

Ella started off as a hairdresser and waitress but decided to become a nurse. In her 30s she first went to community college but continued to earn bachelor's and master's degrees in nursing. With strong family support, it took her seven years to earn her final degree. Ella's motivation to continue advancing her education came from two sources – from realizing that she does well as a student, and, more importantly, from experiencing that each academic advancement led to more interesting and fulfilling professional opportunity. Bill's and Dave's experiences were similar, propelling them from blue collar professions to becoming doctorate degrees holders.

Bill has practically not stopped going back to school since he first enrolled college in his late 20s after losing his job in a lumberyard. Experiencing very strongly that more education leads to better employment opportunities, he returned to education each time his career stagnated:

It first started with this epiphany "Wow, if I don't go to college, I'm not going to have the same living wage life as my parents." I continued to make the same realization throughout my career, something was clicking and saying, "This job market is really competitive and you need a master's degree to set yourself apart." I was always trying to advance my career, focusing on gaining new skills, thinking how can I make myself more marketable. Whenever I was looking for a job, I went back to my MO - enroll in another program, earn another certificate. Four years ago I decided to enter a doctorate program because I could see the job market getting even tighter, thinking that will make me even more marketable for an executive position.

Dave did not go back to school until 2004. He had been a fire fighter for 35 years by that point and a promotion to fire and arson investigation somewhat forced him into a certificate program, which, in turn sparked his interest in going for a bachelor's degree.

This was about the time that online learning was getting very popular, so I could find a school I wanted to go to without having to move or travel. In 2007 I finished with a bachelor of science in fire safety administration. About that time I was moving my way still up the ladder here at [company] and became the assistant fire chief. The job position stated they preferred a master's degree but I was actually just finishing my bachelor's and they said that was fine as long as I was going to finish my degree. I did finish, and then I began right away into my master's degree in executive fire service leadership. That was right in line with my position. When I left the fire bureau I wanted to teach, in fire education, so I selected a program in education, my degree is a doctor of education.

Dave earned his bachelor, master and doctorate degrees over a short 10 years and, more importantly, he earned all his degrees after turning fifty. His return to education was motivated at first by prospects of professional advancement and later by realizing that a higher degree would allow him – as a university instructor – to give back to the field he understands well and to the profession he loves. He also noted, similarly as Helen, the broader benefits of learning such as intellectual stimulation, social interactions with students and faculty, networking and a sense of purpose.

Ed started off in retail and eventually made it into banking. He was close to 40 when he lost his job in the bank and decided to take advantage of dislocated worker training funds to go back to school. Ed completed a certificate program in information technologies at a community college. He experienced similar affirmation like Helen, Ella, Bill and Dave of being capable of keeping pace with younger students and doing well as a student. Unlike them, however, Ed did not experience relevant professional advancement and does not feel motivated to continue investing in education.

As working adults, four out of the seven study participants who didn't go to college after high school experienced remarkable gains in educational attainment mirrored by upward career mobility. They continue to experience education as an empowering force and a part of their everyday life. On the other hand, the three participants who did not achieve significant

educational gains also did not experience a lot of professional success, and are the least active learners.

5.3.6.2 Going back to school as working adult with a college degree

Eight out of the 15 study participants attended college directly after graduating from high school. Carlos was the only one who went to a two year college, all others went for a four year degree. Gwen was the only one who continued directly to a master's program; the rest joined the workforce after graduating college. Six of them went back to school as working adults: Carlos for a bachelor's degree, Debbie, Fay and Irene for a master's degree, Jane for a certificate program and Frank engaged in non-degree studies. Beth was the only one who did not go back to school as a working adult. Here again the decision making about going back to school differed among the study participants. For some, going back to school was about a career change, for others it was about career advancement. The participants also differed in their preferences for formal versus informal education.

Carlos and Debbie went back to school to negotiate a career change. Carlos worked across various occupations prior to becoming a school custodian. After 14 years in that job, in his 40s he became a math teacher by earning a bachelor's degree. He believes teaching was his true calling and going back to school was necessary, albeit the least enjoyable part of his career transition. Debbie also negotiated a career change as a 40 year old after losing a career of 12 years in baking. She took the advice of her family and friends suggesting that she would make a really good teacher:

So I went back to [school] and got my Master's of Arts and Teaching degree. The program is a little bit different, you're immersed in the school as a teacher all day and then do your course work in the evening for 18 months. So, it was very rigorous. I had no idea if I was going to have a niche for it and if I was going to enjoy it but I kind of had to do it.

Both Debbie and Carlos did not spend too much time weighing their options, choosing among different schools and programs or stipulating specific returns on their investments. In a way, they needed a new career and teaching sounded very plausible to them and so they went through the path of least resistance. They both already had an affiliation with a particular elementary school – Carlos as a custodian, Debbie as an active parent – so they leveraged the support and encouragement from these institutions along with tuition subsidies and other resources available through them, including established connections to specific programs and universities.

Jane and Frank also contemplated going back to school to negotiate a career change but neither committed to a full degree program. Jane worked as an engineer in a nuclear plant after graduating from college but then decided to become a stay-at-home mom and didn't return to work for 21 years until she was 50. By then she knew her technical skills were severely outdated but more importantly she was no longer interested in nuclear engineering. She took a temporary administrative job and eventually progressed to an entry-level management role in a large nonprofit organization, discovering that this field could be a good fit for her especially if she intentionally developed broader nonprofit management skills. After some exploration of possibilities, Jane opted for a short certificate rather than a full degree:

I kind of dabbled. I just thought I'd try one of these courses, it was like a Saturday morning course. And it was really interesting. But as for going for a full master's degree? I don't see where that fit. I don't know that that would help me. Do you go for a master's at this age? Is somebody going to hire you with a master's at 58? Does it really matter? It's kind of that weird age where people are leaving work and are you going to enter a new position?

Jane admitted that if she had negotiated a career change earlier she would not have hesitated to enroll in graduate school. Her current skepticism toward earning a master's is age

related; she doesn't believe she can, at this age, professionally reinvent herself to the extent that would warrant significant investment in education.

Frank audited a number of graduate classes in his mid-thirties but eventually opted for non-formal modes of learning to transition into the software development field. To Frank, non-formal learning presented more flexible options, he could learn quicker what he wanted without having to follow a strict curriculum. To this day, Frank is a very active learner leveraging many different formats of learning from massive open online courses (MOOCs) and formal lectures at universities to professional conferences, meet-up groups, work lunch and learn events or online discussion portals.

Irene and Fay went back to school not to negotiate a career change but to deepen their professional expertise and boost their careers. Fay started her career in advertising and advanced through on-the-job learning to marketing and communications. She loved her field and always looked for opportunities to advance in it. Her family financial situation didn't allow her to go back to school until she was almost 50:

I always said if somebody else pays for it I will go back to school and get a Master's degree. The company that I was working for had that sort of benefit. I got a degree in communications research. It was exactly what I wanted to do, a lot of qualitative and quantitative research involved. My company wanted to grow their marketing research capabilities and have somebody do all of the data analysis so it was a mutual benefit.

Irene was more intentional than Fay in pursuing a graduate degree to advance her career, deciding to go back to school in her mid-thirties after spending the first decade of her professional life in the field of social justice and community development:

So, that was really great work. I did that for a few years and then I just knew I needed to go back to school and get more learned. I just reached the peak, I knew I needed more insight and education around economics, social issues and even quantitative methods. So I went back to be more stimulated and to gain new skills. I needed to be competitive to be able to move on. So I got an MBA and moved to working in city government, consulting, academia and the corporate world.

Irene and Fay, like Frank, had and still have a lot of passion for career learning. But, unlike Frank, they have more trust in educational institutions and formal educational credentials. Beth, on the other hand, was convinced she could learn more and better on her own, following her interests and specific learning needs. At times, when her career stagnated, she contemplated a return to school. She did not really believe she would learn much new in graduate school but thought a formal degree may give her a more competitive edge, as hiring managers tend to prioritize candidates with higher credentials:

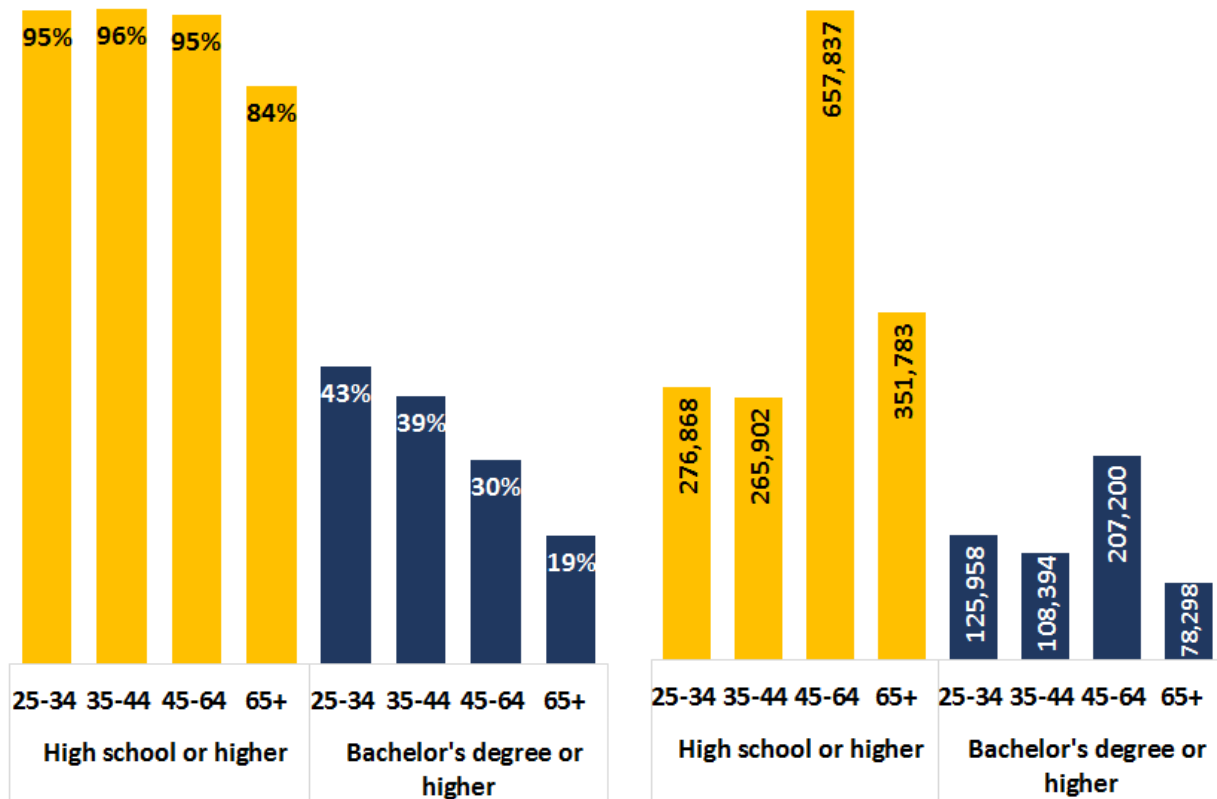
Early on I thought if I'm not finding a job, maybe what I should be doing is getting a master's degree and to be more qualified. And then I got a new job, so I didn't have to do that. And at every similar stage, I got a new job so I never had to do that. Throughout my career, I've always felt that the things I'm doing at my job, I've learned by doing instead of learned in a classroom. So my first inclination wasn't that I can go in a classroom and pick up what I'm going to need to do.

Overall the returns on additional educational investment differed among the eight people in my study who went to college right after high school. Gwen and Fay, despite their graduate degrees, 35+ years of steady employment with remarkable career advancements and upward mobility are struggling with long unemployment. Irene who opted for formal graduate education and Frank who built his career through non-formal learning are both doing quite well. So are Carlos and Debbie who went back to school to negotiate a career change. Jane who went for a short certificate program and Beth who opted out from formal or non-formal career learning (other than on-the-job learning) are maintaining their employment but achieving very little upward mobility.

5.4 RECOMMENDATIONS AND CONCLUSION

So far, the region has benefited from the substantial investments in career learning in general and formal education in particular that baby boomers made since the 1980s. Compared with younger cohorts, college graduation rates of baby boomers are lower. Given the large size of their generation, however, there are more higher education degree holders in this cohort than in the rest of the adult population (see Figure 17). There are about 520,000 of people over 25 with a four-year degree or more in the Pittsburgh region. Almost 285,500 (55 percent) are 45 or older.

Figure 17: Educational Attainment by Age Cohorts (2014), Pittsburgh Metro Area



Data Source: U.S. Census Bureau, 2015.

These education statistics are often overlooked in debates about the region's workforce aging. How many of the almost 80,000 college educated 65+ year olds have already left or are about to leave the labor force? What will happen to the region's economy when the largest group of educated professionals, the 200,000 45 to 64 years olds, leave or – worse – start becoming disregarded by hiring employers like Gwen or Fay?

Without up-to-date skills, employment prospects of older workers may be compromised even if their education background is strong. The 21st century job markets expect all individuals to engage in lifelong learning (Brine, 2006; Finsden & Formosa, 2011; Segrist et al., 2007). Older workers, however, have been less active than their younger counterparts in investing in career-related training and education (Knipprath & De Rick, 2014). Even though today's older people are much more active learners than previous generations (Finsden & Formosa, 2011), the share of those engaging in formal career learning at later age is very low given the significance of this cohort in the labor market. For example, only 2 percent of the 50+ years old and only about 8 percent of the 40-49 years old in the Pittsburgh area were enrolled in post-secondary educational programs. About 58 percent of these learners complete their programs – a third with master's or doctorate degrees, 28 percent with sub-baccalaureate certificate, 19 percent with associate degree and 18 percent with bachelor's degree (National Center for Education Statistics, 2016).

Nationally, older people who do not engage in career related learning indicated the following five top reasons: 1) being too busy (31 percent of non-learners); 2) learning is too expensive (25 percent); 3) times or locations of training are inconvenient (15 percent); 4) family demands such as taking care after a parent or spouse take priority (13 percent); 5) unexpected

interference such as health issues (8 percent) (Cummins et al., 2015). While almost all the people I interviewed were actively engaged in career learning, they were dealing all of the issues above – from cost to time constraints. However, the least active learners gave a different reason for their lack of career learning – they didn't see the point in investing in learning at their age anymore, they didn't think it would produce reasonable returns on their employment or earning outcomes.

Most of the baby boomers I interviewed are actively engaging in some form of career learning, but they were tentative about their future career and learning plans. Their explanations were simple and understandable. Many of the interviewees experienced unplanned turns in their careers or lives (or both) and became more skeptical about long-term career plans. Significant changes within their families – from a death of a parent, an illness of a spouse, to children moving out, getting married or becoming parents – typically brought about many unknowns and shifted the participants' focus on personal rather than career issues.

The interviews I conducted suggested a few possibilities for how their career learning could be supported. Those who struggle with underemployment or unemployment say that they could use two forms of help – financial support to pay for the training and, more importantly, assistance in navigating training options and determining what choices would lead to what outcomes. Debbie, for example, sees this as a broadly needed service:

I would say tuition subsidy because I know a lot of people that do not have higher learning that probably could benefit from it and the reason they shy away is because of the cost. I would also say if somebody just came up with an app for scholarships and trainings locally to help you navigate the options.

Navigating options seems to be particularly challenging for the people I interviewed. Those experiencing career struggles were wrestling to determine which training would produce the surest returns on their investments, what fields would be less biased toward their

backgrounds and age, or what occupations they could be good at. Those pursuing their quests for encore careers were equally overwhelmed by the wealth of possibilities on one side and the lack of reliable information and resources to facilitate their late-career transitions.

People who went back to school at a later age agreed on the importance of allowing older students to obtain credit for their previous learning and experience. Dave (64), for example, who started college and two graduate schools in his 50s recalls:

I got credit for my lifelong experiences. I was able to get, I want to say twelve credits just from what I had accomplished over the years. They didn't just hand it to me, I had to categorize all of the certificates and certifications that I got. It was like almost writing a little research paper, but I wrote about everything and how I earned it and tell the story and they accepted it all. That was kind of nice because that was three maybe four classes that I did not have to take.

Dave believes that the initial experience of him being able to capitalize on his professional achievements in terms of academic credit and thus move through the coursework faster was very important for him. He felt empowered rather than problematized as a non-traditional student. Helen (58), on the other hand, was unable to use this perk as the university she attends has a very narrow policy on prior learning credit. She believes that her life and professional experiences should count more:

The one real big complaint I have is that I think students like me should be able to get some credit for life experience. For example, I'm taking theater classes. I've probably seen more Broadway plays than everyone in my class combined because they're only 18 years old. But I have to sit in a theater. Or I'm taking child psychology. I'm the only person in the class that has had a child. When I took sociology of marriage, I was the only person that was married, including the professor.

Helen does well as a student but she particularly excels in classes that offer more opportunity for self-paced learning. She believes she is very disciplined and can also easily recognize what she needs to spend more time on and what she can run through. She draws a

parallel between being student and being a professional, pointing out that she feels most empowered when she is trusted to do her job well.

Jane, (57) who went back to school in her 50s like Dave and Helen, brought up the importance of instructors and advisors recognizing the complexity of older students' lives. Before enrolling in her program she worried if she would be able to keep up with the material and that she would be handled as less capable by faculty used to young students:

I was lucky to have my first two classes was with [this person]. She was like the non-traditional old support person. She was so good about being a cheerleader and saying, "you can do this; it took me 20 years to get my PhD. If you want to do it, you can do it." She was really good. She knew about my situation, my husband's illness and what it takes to handle bigger work and life issues. Now, I don't know who's there now but I hope they have somebody as strong because if I were to walk in and it would have been somebody that was 32 years old, it would have been very different.

Jane attributes her positive student experience and learning outcomes to having advisors and instructors who understood the needs of older learners and were able to create space for them.

Study participants who experienced downturns in their careers and attempted to go back to school at a later age also suggested that career services such as help with resume and job interview preparation as well as job placement assistance would be beneficial as they go about negotiating the career change. This was especially important to those who had stable employment for many years without having to invest in developing new, more up-to-date job seeking and interviewing skills. These participants also suggested a close coupling of education and career services in the pre-training phase as their decision-making and commitment to training could greatly benefit from information and advice on post-training employment outlook and possibilities.

Retaining older workers, and retaining them in good jobs, may not only serve the economic interests of older workers. It is also an economic and social security issue essential to successful generational succession. If the employment opportunities of the largest cohort of earners continue to deteriorate, the employment prospects of the next generation may be compromised as well. This is the central issue of generational transitions. That is, the cost of labor market failure of one cohort will have to be distributed among those more successful. If the struggling cohort happens to be the largest one, the costs are much harder to absorb (Carnevale et al., 2013; Eichhorst et al., 2013). For example, the quality of education for the next generation depends in large part on the earning power of those who are working. So does the quality of life for the elderly and children (McClure & Krekanova, 2016).

Engagement in career learning at a later age (or lack of it) seems to be influenced by previous participation in education, and more importantly, by experiencing the positive benefits of learning for career advancement and employment stability. In other words, those able to access, succeed in and benefit from educational opportunity in earlier stages of their professional lives are more likely to sustain career learning throughout their lifespan (Findsen & Formosa, 2011; Knipprath & De Rick, 2014; Majeed et al., 2015)

On the other hand, as age increases, the barriers to career learning augment. Besides the common structural barriers, time, cost, and convenience (Cummins et al., 2015), there is the notion of running out of time to learn new skills, and more importantly, to realize the returns on the investments in career learning at later life. The study participants supported the claim that the rate and lack of predictability of changes in high demand skills discourages them from investing in career learning (Segrist et al., 2007). The participants also pointed out that as people age, their

investment priorities change. For example, Beth (56) is not against learning, but she intentionally prioritizes her interests over career learning:

I'm skeptical about the value of education beyond a college degree. And I feel that I have limited time so I need to prioritize. I have three children, that means that I already have personal interests that I've totally put on the backburner so far back, that they never see the light of day. So if I'm going to allocate time towards learning it's not going to be to a degree and career.

Frank (56) is putting Beth's claim in an even broader perspective. An active learner and successful professional now, he is not committing to continue his engagement in the labor market unless there is a clear value proposition:

To get people like me to work longer, we have to experience real value in what we do. Since we have a decreasing amount of time left to live, unless we feel there is more value in our work than in other activities - say fishing, for example - we will see continuing to work as a waste of the scarcest resource we have.

6.0 THIRD STUDY: AGING WORKERS AND CAREER LEARNING POLICIES

6.1 INTRODUCTION

Older worker retention strategies are critical to slow the consequences of rapid aging and to improve the economic prospects of all generations (Denton & Spencer, 2009; Eichhorst et al., 2013; Samorodov, 1999). Retaining older workers, and retaining them in good jobs, does not only serve the economic interests of older workers. It is also an economic and social security issue essential to successful generational succession. If the employment opportunities of the largest cohort of earners continue to deteriorate, the employment prospects of the next generation may be compromised as well. This is the central issue of generational transitions. That is, the cost of labor market failure of one cohort will have to be distributed among those more successful. If the struggling cohort happens to be the largest one, the costs are much harder to absorb (Carnevale et al., 2013; Eichhorst et al., 2013). For example, the quality of education for the next generation depends in large part on the earning power of those who are working. So does the quality of life for the elderly and children (McClure & Krekanova, 2016).

The traditional policy assumption is that older workers can be incentivized – to continue working past retirement age by removing barriers such as mandatory retirement age or establishing flexible work arrangements. These policy approaches do not account for older workers' willingness to continue to invest in their careers either by learning new skills or by

occupationally reinventing themselves in situations after their previous occupations have become redundant in the local market.

The lack of precedent in workforce aging translates into a lack of historic examples available to guide policies on career learning at later stages of people's professional lives (Bloom et al., 2014). Our understanding of when, why and how current older workers make decisions about retirement is limited (P. Brown & Vickerstaff, 2011; Khan et al., 2014; Ondrich & Falevich, 2013; Van Solinge & Henkens, 2014). We understand even less if and how much aging professionals are still interested in investing in their careers. Who and for what reason is more likely to pursue new career learning? It is the people whose career ended abruptly or those whose skills became obsolete due to structural changes in the local labor market and who therefore need to vocationally reinvent themselves? Or is it the people who continue to be professionally successful but enjoy learning? So far research tells us that the second group it is more likely to be engaged in career learning at later age (Findsen & Formosa, 2011; Rutledge, Sass, et al., 2015).

In the Pittsburgh area where this study was conducted, the local population 55 and over accounted for close to 840,000 (34 percent of the total population) in 2015, a significant increase from approximately 660,000 in 2010. By 2040, this cohort will surpass 915,000 (36 percent of the total population). Yet only 2 percent of people in this age category were enrolled in post-secondary educational programs (National Center for Education Statistics, 2016). At the same time, two thirds of workers over 55 work in occupations paying below average wages (U.S. Census Bureau, 2016).

The data suggest that older professionals struggling to earn higher wages or maintain employment do not turn to training and education to solve these issues. Research, including the

findings of the two previous studies included in this dissertation, confirm that older workers are more likely to perceive the current labor markets as unprecedentedly competitive, unprotected and unpredictable. With these perceptions, the expected remainder of their employment tenure, and frequent experiences of ageism, older workers are often discouraged from continuing to alter their careers through education and training to fit the new labor market expectations (Barclay et al., 2011; S.-J. Kim, 2013; Ronzio, 2012; Segrist et al., 2007). In other words, they tend to doubt the effectiveness of their investments (financial and emotional) in redefining their professional focus at later stages of their lives.

This study addresses the need to better understand the extent to which contemporary education and skills training policies are supportive of aging professionals' needs, interest and willingness to engage in career learning. Specifically, this study examines the existing U.S. workforce development and adult education policy provisions under the federal Workforce Innovation and Opportunity Act of 2014 (WIOA), as implemented by The Commonwealth of Pennsylvania. It does so through the lens of employment dynamics and career learning experiences of older workers in the Pittsburgh area labor market. Ultimately, this study highlights opportunities for better alignment of career learning policies with the needs of aging labor markets and interests of older workers. The study findings also have implications for the policies and practice of institutions concerned with provision of career learning and adult education.

6.2 STUDY DESIGN

I conducted this study as a policy analysis. I combined policy document analysis (Owen, 2013) and narrative analysis (Mertens, 2010) to map the content of workforce development and adult learning policy provisions against the older workers' career learning needs. I especially focused on assessing the differences in the perceptions of the value proposition of the specific career learning framework (career pathways) endorsed by current public policies. The guiding question of this study – To what degree are existing workforce development and adult education policies aligned with career learning needs of aging professionals? – aims at assessing the opportunities and gaps within the current workforce legislation to support career learning by older workers.

6.2.1 Conceptual framework

Conceptually, this study is anchored through the notion of generational transitions. Specifically, the notion of mutually reinforcing generational interests guided my approach to this policy analysis. I view the public investment in employability of older workers as a powerful intervention that can benefit economic prospects of other generations, not just the particular interests of the aging workers.

6.2.2 Data

I used two sets of data – older workers' narratives, and policy documents related to the 2014 Workforce Innovation and Opportunity Act. For the policy documents, I included the Pennsylvania Workforce Innovation and Opportunity Act Combined State Plan for the 2016-

2020 period that lays out specific strategies and tactics for implementing the federal legislation in Pennsylvania.

The narratives came from interviews with 15 local individuals 50 or more years old, working or looking for work. This sample was not intended to achieve statistical validity and to generalize the study's findings as relevant to the entire population. Rather, it served to portray diverse ways aging professionals look at career learning and how their learning experiences shaped their career trajectories and future career plans. The size of the sample, therefore, was created out of a commitment to reaching a meaningful level of saturation rather than statistical validity, to creating a useful portraiture rather than a generalizable pattern. Table 5 provides a detailed summary of the participants. I used pseudonyms to protect the participants' privacy.

Table 5: Study Participants

person	age	returned to school as working adult	highest education	current employment situation	retirement plans	interested and able to benefit from career learning public policy provisions
Alice	52	twice, late 20s/early 30s	associate's degree	employed, struggling to advance	doesn't plan to retire	not interested; feels it's too late to benefit
Bill	53	several times, late 20s to present	doctorate degree	under-employed, hoping to advance	doesn't plan to retire	not able to benefit
Carlos	53	once, early 40s	college degree	employed, enjoying his job	will retire as soon as possible	not interested and not able to benefit
Ed	53	once, early 40s	post-secondary training	temporary job, struggling to advance	no specific plans yet	interested, not able to benefit
Beth	56	no	college degree	employed	no specific plans yet	not interested; feels it's too late to benefit
Ella	56	twice, in her 30s	graduate degree	employed	will retire as soon as possible	interested, not able to benefit
Frank	56	no but active in non-formal learning	college degree	employed, enjoying his job	no specific plans yet	interested, not able to benefit
Jane	57	once, in her 50s	college degree	under-employed, hoping to advance	no specific plans yet	interested, not able to benefit
Debbie	58	once, early 40s	graduate degree	employed, enjoying her job	will retire as soon as possible	not interested and not able to benefit
Helen	58	once, from late 40s to present	high school, pursuing college degree	under-employed, hoping to advance	no specific plans yet	interested, not able to benefit
Gwen	61	no but now self-studies for professional license exam	graduate degree	long-term unemployed	no specific plans yet	open but doubtful, able to benefit
Carol	62	once, early 30s	high school	employed	no specific plans yet	not interested; feels it's too late to benefit
Fay	62	once, early 40s	graduate degree	long-term unemployed	no specific plans yet	open but doubtful, able to benefit
Dave	64	several times, late 50s to present	doctorate degree	employed, enjoying his job	doesn't plan to retire	interested, not able to benefit
Irene	66	once, mid 30s	graduate degree	part-time employed, enjoying her job	doesn't plan to retire	interested, not able to benefit

6.2.3 Data analysis

I used NVivo to conduct this analysis. I started by identifying key provisions in the relevant policy documents and used NVivo to create an initial coding structure for the review of the participant narratives. I looked for thematic alignments (or lack thereof) across the older

workers' narratives against the policy documents. I focused the analysis on identifying opportunities and gaps in the existing public policy in relation to local employment trends and career learning needs of older workers. I used NVivo's conceptual mapping feature to highlight intersections between career learning needs of older workers and current instruments of workforce policies.

Rather than conducting a detailed examination of every aspect of the current workforce policies, I focused the analysis on the provisions that directly relate to career learning to build clear arguments about ways career learning policies support or hinder older worker employability and retention.

6.3 CAREER LEARNING POLICIES AND AGING PROFESSIONALS

6.3.1 Federal and Pennsylvania policy frameworks.

In 2015, the U.S. government passed, by a wide bi-partisan majority, the first legislative reform of the public workforce development system established in 1998. The 2014 Workforce Innovation and Opportunity Act (WIOA) is a complex law that establishes unified strategies in adult education and workforce training across several agencies, including the Department of Labor, the Department of Education and the Department of Health and Human Services. The key purpose of this policy framework is to ensure that all Americans are trained with the skills employers need, and matched to good jobs. Through a strategic coordination of employment and training services administered by different departments, WIOA establishes a federal policy

platform for investments in career learning (Workforce Innovation and Opportunity Act of 2014).

WIOA requires each state to develop their own investment strategies that reflect the needs of their employers and the workforce. The Commonwealth of Pennsylvania's vision for WIOA implementation is anchored by Governor Wolf's agenda to "increase the number of 'jobs that pay', expands the number of 'schools that teach' the skills necessary to succeed in college and careers, and [set] a model of 'government that works' " (Wolf, 2016, p.7). One of the key goals of the Pennsylvania 2016-2020 WIOA Combined State Plan is to "establish career pathways as the primary model for skill, credential and degree attainment and provide all Pennsylvanians, with an emphasis on Pennsylvanians with barriers to employment, an opportunity to obtain a job that pays" (Wolf, 2016, p.8). Other goals include the expansion of public-private investment in skills development, increased employer engagement in skills training, increased career learning and work experiences for youth, and better data sharing systems to facilitate outcome tracking. In this study, I focus specifically on the aspects of the career pathway approach to career learning, including the prioritization of individuals with barriers to employment which include older workers.

6.3.2 Policy strategies for career learning.

Shifting employment dynamics worldwide have brought more attention to lifelong learning as an effective approach to maintaining the labor market value of the workforce's education and skills (Schleicher, 2013). In the relevant literature, lifelong learning for employability purposes (typically referred to as career learning) tends to be conceptualized as structured, post-secondary education or training focused on specific occupational skills (Brine, 2006).

In the U.S., workforce development policies identify career pathway models as a key framework for career learning. Career pathway models are to integrate adult education, workforce preparation and skills training, and a spectrum of career services to develop foundational, employability, and occupational skills (CLASP, 2016). The federal workforce legislation envisions career pathways to be driven by local labor markets. That is, career learning opportunities funded by public dollars are required to be tied to occupations and skills in demand locally. In addition, career pathways are required to demonstrate that employers work closely with educators and training providers to ensure that graduates of training programs attain industry recognized credentials and access viable employment opportunities (Workforce Innovation and Opportunity Act of 2014).

Pennsylvania's workforce development policies are strongly aligned with the federal notion of career pathways. The Pennsylvania 2016-2020 WIOA Combined State Plan envisions career pathways to be instrumental in achieving upward mobility especially for individuals with barriers to employment. To that end, the Commonwealth establishes two criteria. First,

Career pathways must be diverse with multiple entry and exit points allowing individuals of varying abilities, including low-skilled adults and youth with multiple barriers to employment, to have realistic access to pathways. The Commonwealth will support career pathways that help adults and youth advance among multiple occupations, advance within an occupation or move to a new occupation that has similar skills to a previous occupation (Wolf, 2016, p.8).

Second, the Commonwealth instituted minimum spending requirements for training. It mandates that local workforce boards prioritize training over other employment and career

services, allocating at least 30 percent of 2016 funds, 40 percent of 2017 funds and 50 percent of 2018 and later funds to training. In addition, it requires that

at least 50 percent of funds utilized to meet the training benchmark must be spent on low income individuals and individuals with other barriers to employment, with the percentage rising to 60 percent in 2017 and 70 percent in 2018 and thereafter (Wolf, 2016, p.10).

Both the federal legislation, and the Pennsylvania WIOA plan in particular, emphasize the need to direct more resources to individuals with so-called barriers to employment. These barriers include individual characteristics or experiences that often disadvantage job seekers in gaining and retaining employment opportunities. WIOA views the following groups as individuals with barriers to employment:

displaced homemakers; Indians, Alaskan Natives and Native Hawaiians; individuals with disabilities including youth with disabilities; older individuals; ex-offenders; homeless individuals; youth who are in or have aged out of the foster care system; individuals who are English language learners, individuals with low levels of literacy and individuals facing cultural barriers; eligible migrant and seasonal farmworkers; individuals within two years of exhausting lifetime eligibility under TANF; single parents to include single pregnant women; and long-term unemployed individuals. (Wolf, 2016, p.12)

With the assumption that older age is a barrier to employment, older individuals are prioritized beneficiaries of the public workforce development system. Besides this designation that groups older workers with many other priority groups, the relevant federal and state policy provisions show no consideration to the specific workforce needs of older workers.

With the career pathways approach, and especially the increased allocation of funds toward career learning and disadvantaged populations, the Commonwealth expresses both: the acknowledgement that labor markets are becoming more volatile, forcing people to frequently upgrade their career skills, and the belief that career learning and skills training is the way to increase employability of individuals with barriers to employment, including older workers. The following section looks at the career pathways framework through the lens of career experiences and learning plans of local aging professionals. It assesses to what degree the current policy frameworks for career learning resonates with the aging professional.

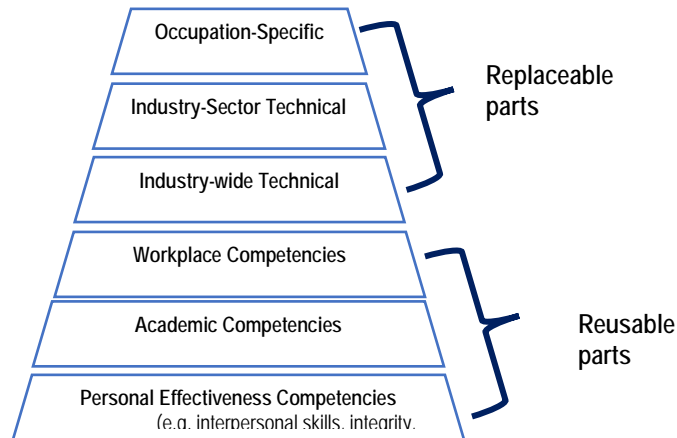
6.3.3 Career Pathways and Competency models

Career pathways are essentially frameworks that group several related occupations to highlight possibilities for new upward or lateral career development (Ennis, 2008), and more importantly to develop instructional programs which would ensure strong alignment between the needs of industry and the needs of workers (Pearson, 2012; Slaper, 2011; Wang, 2012; Withington et al., 2012). For example, a healthcare practitioner career pathway includes occupations such as nurse's aid, phlebotomist and registered nurse, among others. The assumption here is that people can enter specific professions with basic credentials, and advance and/or transition to related occupations within these professions through additional training. Formal career learning – through an educational institution or on-the-job through training provided by an employer – plays a critical role in career pathway models. It functions as on- and off-ramp system between education and employment allowing people to simultaneously stack educational credentials and work experiences.

To operationalize the notion of career pathways, workforce policies and educational institutions typically rely on so-called competency models to provide career learning opportunities. These models are essentially frameworks for constructing job descriptions by defining the necessary “capabilities of applying knowledge, skills, abilities, behaviors, and personal characteristics to successfully perform critical work tasks, specific functions, or operate in a given role or position” (Ennis, 2008, pp. 4-5). Employers have used competency models to select workers for a quite some time. The growing emphasis on career learning to be both quick and leading to viable employment opportunities – especially if funded through public funds – promoted the use of competency models in workforce development. In career learning policies and practice, competency models are regarded as tools to map and assess both the current and the desired skillsets of workers as well as requirements of in-demand jobs and careers (ETA, 2016).

Competency models use multiple, hierarchically ordered categories to define occupation-specific knowledge, skills, and abilities (see Figure 18). The lower tiers of these competency pyramids are viewed as forms of general human capital having greater durability and being transferable among all occupations. For example, dependability, critical thinking, teamwork, writing skills or use of computer technology are applicable across occupations. The higher tiers, on the other hand, are viewed as specific forms of human capital and as such not easily reusable in other occupations. For example, patient interaction skills, understanding of infection control processes, and diagnostic procedures are only applicable in the healthcare sector.

Figure 18: Competency Model



*Adapted from the ETA Competency Model located at
<http://www.careeronestop.org/CompetencyModel/competency-models/building-blocks-model.aspx>*

6.3.4 Older workers' buy in career learning policy frameworks

Career learning frameworks as defined by WIOA and the Commonwealth's Combined State Plan assume broad benefits of career pathways and competency models. That is, they assume these approaches can and will effectively serve learning needs of all workers, especially those with barriers to employment. In addition, they assume these approaches can and will function as effective interventions for people experiencing career struggles – whether that is unemployment, under-employment, or a risk of a layoff. Framed as such and prioritized through funding allocations, career learning has become a key employability strategy of current federal and state workforce policies. While not explicitly stated, it can be assumed that concerns for employability and retention of aging workers are embedded in these policies.

The interviews I conducted with aging professionals in the Pittsburgh area indicated that the approaches to career learning as formulated by current workforce policies do not necessarily resonate with this population. This can be problematic especially in the context of the local labor market dynamics. For example, by 2020, the cohort 60-69 years old in the Pittsburgh area will

surpass the cohort of 15-24 year olds by 37,000 (U.S. Census Bureau, 2016). To sustain its economic prosperity, the region needs to figure out ways to prolong the working lives of older workers. The conditions of the local labor market are, however, not necessarily stimulating of strong older worker retention. Local employment of older workers is concentrated in lower-paying occupations; two thirds of older workers are employed in occupations with average wages below the regional average wage of \$22 per hour. More importantly, the number of people over 55 experiencing job changes doubled over the last 15 years (U.S. Census Bureau, 2016). These changes, especially if they are involuntary, often lead to early retirement (Munnell et al., 2013).

The notion of career learning resonates strongly with the aging professionals I interviewed. From the 15 study participants, only three – Beth, Frank and Gwen – did not return to school as working adults. Frank and Gwen, however, still actively engaged in career learning leveraging non-formal education. All but two of the study participants described themselves as active learners in the sense of career learning. Carol and Alice, who don't see themselves as active learners, nonetheless believe that when it comes to new job requirements, tasks or technologies, there is not much they would not be able to learn.

For the study participants, there were two primary reasons for engaging in career leaning – career advancement and career change. They all noted they experienced professional advancement through career learning and felt confident as a learner, able to continue learning new things to keep up with the changing demands of their jobs. A majority of them also shared that they felt empowered by their accomplishments as learners, with most of them referencing their ability to learn new things as being key to their professional success. Despite the positive relationship to career learning among the study participants, only one – Gwen – turned to career

learning as an older worker to resolve her career struggles. In other words, the buy-in for a brief return to education to boost career prospects and employability as envisioned by the current policy frameworks was very low among the aging professionals I interviewed.

The following section reflects the key career learning policy provisions through the study participants' narrative, showing a troubling disconnect between policy aims and older workers' interest in career learning.

6.3.4.1 Struggling older workers are not engaging in career learning

Five of the 15 study participants have been experiencing career struggles for several years. According to the current workforce policies they would be prime candidates to benefit from career learning opportunities – they are individuals with multiple so called barriers to employment; they are older, currently low income, and two have been unemployed for over two years. Alice and Carol are stuck in low-paying jobs, Ed has been working through temp agencies for several years unable to secure a permanent position, and Fay and Gwen have been experiencing long-term unemployment after a loss of their professional life-long careers. None of them has means to retire; however, four out of five opted not to engage in career learning in their attempts to improve their employment prospects.

Alice has been working as an administrative assistant in a large engineering firm for the past eight years. She has an associate degree in business and over 25 years of prior work experience as a healthcare executive secretary, and a medical office manager. She lost her career in the healthcare industry in her 40s due to the recession. After the layoff, Alice struggled to find a new job for five months. For Alice, the most puzzling part of this, her only period of unemployment, was her inability to secure another job in the healthcare industry given the prevalence of healthcare jobs in the region as well as her strong and relevant professional

background. Alice concluded that it was her age that made her less attractive to hiring managers. She doesn't particularly like her job but is happy she has one. Despite her continuing financial struggles, Alice is convinced it is too late for career learning in hopes of professional advancement:

I can't imagine myself sitting and doing the same thing for next 15 years, but in reality, to start all over again at 52? I don't know, that's scary. If I go back four years from now, I get my degree, all right so that makes me in my late 50s. Really! Who's going to hire me? So it's kind of like I'm making it now so why rock the boat?

Carol's professional story is very similar to Alice's. She, too, has a low-paying administrative job despite her background in monitoring the implementation of government-funded services for people with disabilities. Carol would agree with Alice on the age aspect but she also doubted the overall benefits of additional education, perceiving the local employment conditions as somewhat bleak:

At this late date, I would not consider going back to school even short-term. Because even graduates that are coming up now, like my nephew, are not finding any great jobs either. For me, to try? No, I don't think it would pay off. I would have to be somewhere for a while to make decent money that would pay off.

Ed is more open to going back to school. Like Alice and Carol, he worried that hiring managers are biased against older workers, but his major hesitations came from not knowing what field to invest in to achieve reasonable returns on his late career learning investments:

I would go back to school but I would probably pick another field. I don't know, just because the IT field I am in now is changing all the time and you have to kind of keep investing in your career. But I don't know what field I'd go into.

Ed went through an involuntary career transition about 10 years ago when he was one of many laid off from a large bank. He went back to school and successfully retooled himself as an IT technician (using public dislocated worker funding), but his employment consists mainly of temporary jobs as permanent jobs in this field tend to be reserved for job seekers with a full

college degree. The inability to secure a permanent job prevents Ed from investing in more learning; he can't afford to pay for it with his income.

Fay has been unemployed the last two years despite her up-until-then very successful career in marketing and communications. She had a dilemma similar to Ed. She would be willing to accept that her graduate degree and 35+ years of experience in her field are no longer valuable in the local market and try to reinvent herself. Fay, however, like Ed, has struggled to identify opportunities that would justify additional investments in education for her:

I would go back to school. As a matter of fact, I like going to school, I always have. I look for opportunities. There was something not that long ago, it was healthcare related, training for the person who shadows the doctor and is taking all of the notes into the medical records. It sounded interesting so I started to do some research. Well, there were many available programs! But then I looked to see how much money they made, it was like \$11 to \$12 an hour. But then why would I want to go through all of that when I could go make phone calls for \$11 an hour?

Gwen has experienced a similar downturn in her career. A former executive, she now works as a part-time cashier. Gwen didn't believe that another graduate degree or certificate program would make much difference in her employment situation even if she would be able to come up with the resources to pay for it. She has, however, found something that Ed and Fay are still looking for – a possibility for a low risk career change. She is studying for a real estate agent exam, hoping that with the relatively minor investment in career learning she will be able to move from her part-time cashier job to a better-paying field.

Alice, Carol, Ed, Fay and Gwen have the one thing in common – they are struggling to either achieve jobs that pay well or secure employment at all, despite their strong professional background and employment track record. They are not alone in this predicament. For example, a large segment of older workers - 29 percent - is employed in office and administrative support, and sales occupations. These jobs pay below average wages and are projected to decline over the

next 10 years. Overall, only about 34 percent of older workers are employed in occupations with above average wages (U.S. Census Bureau, 2016).

Alice, Carol, Ed and Fay are not the only ones who could benefit from but are not engaging in formal career learning. Even though today's older people are much more active learners than previous generations (Findsen & Formosa, 2011), the share of those engaging in formal career learning at later age is very low given the significance of this cohort in the labor market. For example, only 2 percent of the 50+ years old and only about 8 percent of the 40-49 years old in the Pittsburgh area were enrolled in post-secondary educational programs. Only about 58 percent of these learners complete their programs – a third with master's or doctorate degrees, 28 percent with a sub-baccalaureate certificate, 19 percent with an associate degree and 18 percent with a bachelor's degree (National Center for Education Statistics, 2016).

The value proposition of career pathways and competency models as stipulated by current career learning policies is threefold. First, these models allow the employers to define (and redefine whenever changes in the industry occur) the specific skills and knowledge for each occupation they have a demand for. Therefore, competency and career pathway models reflect authentic labor market demand. Second, the employer-defined competency and career pathway models can serve as effective blueprints for education and training providers. This, in turn, would produce a high degree of alignment between labor market demands and education programs. Ultimately, this system would create strong returns on investment for the learner who is more likely to get hired because employers will be able to recognize and employ the offered skills and knowledge. Third, the hierarchically-ordered competency and career pathway models delineate competency levels and thus create multiple on and off-ramps to education opportunities

and jobs. That is, they are supposed to allow the learners to leverage prior learning and experience, and only invest in learning the missing portion of the defined competency.

With these three value propositions, the current federal and state workforce policies appear to create a meaningful opportunity for Alice, Carol, Ed, Fay, Gwen, and others in similar predicaments to deal with their employment situation. They all fit the ideal beneficiary profile – they have strong professional foundations as demonstrated by 30 some years of steady employment, they have skills acquired in high demand industries but not too narrow not to be relevant in other fields, and their employment prospects and earning abilities are compromised due to labor market conditions.

However, there does not seem to be any evidence of older workers like Alice, Carol, Ed, Fay, Gwen buying into the idea of a brief return to education or training for requalification purposes. Alice and Carol rejected the idea entirely, for them it is too late, they feel that whatever investments they would make would not pay off. They have no trust employers would consider them a viable talent even with more training at this age, and so they settle rather than, as Alice puts it, rock the boat.

Ed, Fay and Gwen were more open to a brief return to education or training to better their job prospects but they have major hesitations. Their experiences after losing life-long careers did not validate the promise of competency models or reusability of previously acquired capabilities. All lost their careers due to structural changes affecting only the top of their competency model pyramid – their occupation-specific skills were no longer needed but their industry-related competencies should have retained their market value as their previous sectors of employment are booming with jobs in the local labor market. Their inability to secure stable employment in the field in which they had decades of experience and for which demand existed in the Pittsburgh

region did not encourage them to think they can do better by exploring new opportunities along related career pathways as envisioned by current workforce policies. Gwen decided to switch to an entirely new field, a former non-profit executive hoping to become a realtor (with a minimal investment needed to obtain a license rather than more intense career learning). Ed too didn't see a lot of career pathways opportunities for him despite him working in the IT field, one of the fastest growing in the region and with the highest demand for talent. His previous experience of a brief return to education after losing his first career didn't pay off as he had imagined. He got industry-recognized credentials in a high-demand occupation, but his jobs are temporary rather than permanent. He believed he might be better off switching to a new field, except he didn't know where and if his potential investments would pay off.

Fay does not believe changing occupations along career pathways or retooling top parts of her competency pyramid would help her gain employment. She has no trust any employer would be open to her shifting her skillset to related professions:

I am looking for jobs that are related to what I used to have. Obviously, I don't expect necessarily to walk into a director of marketing job. A manager of something within a marketing department, yes. People say well what about transferable skills and blah, blah, blah, blah. That's a bunch of crap too because if somebody has a job to fill, there is a line of people with specifically that kind of experience, so who is going to look at my transferable skills?

Local data corroborate the low interest in career learning of older workers struggling to find jobs or attain employment stability. People over 55 accounted only for only 12 percent in 2015 and nine percent in 2016 of those who took advantage of skills training tuition subsidies through the public workforce development system. Research stipulates that older workers want to know that their investments in career learning will pay off during the remainder of their engagement in the labor market (Fenwick, 2012; Hennekam, 2015). In addition, researchers studying aging related career struggles would argue that older workers, despite their growing

numbers and labor market potential, are still severely problematized by governments, employers, and education and training providers (Findsen & Formosa, 2011; McKelvey, 2009; Powell, 2013). Contemporary research also upholds the dominant perspective on career changes at later stages of life as problematic, rather than natural phases of adult professional life (for example: Barclay et al., 2011; Kim, 2013; LaPointe, 2013; Liu et al., 2012; Murtagh, Lopes, & Lyons, 2011; Ronzio, 2012). There is also the notion of generational bias. Supporting career success of older workers continues to be questioned as a possible luxury occurring at the expense of younger workers (Carnevale et al., 2013; Eichhorst et al., 2013). The current workforce policies focus indeed much more strategically on the career learning needs of the emerging workforce than on the aging population.

6.3.4.2 Career learning at later age is driven by job requirements or a quest for more meaningful career

Most of the study participants were enjoying better employment situations than Alice, Carol, Ed, Fay and Gwen. They were more active learners and their career learning activities and plans were less driven by the notion of securing strong and timely returns on investment in terms of better employment prospects. Instead, their career learning was driven either by their need to maintain professional standards or by a quest for a more purposeful encore career. For example, Debbie and Carlos, both teachers, Ella, a registered nurse, and Dave, a fire safety administrator, are working in licensed occupations and therefore required to engage in continuing education, and do so in a rather intensive and prescribed manner. They feel more than saturated in their career learning needs and feel no strong need to pursue new career learning on their own.

Frank, Bill, Helen and Jane are in a different situation. As a software engineer, Frank needs to keep up with advancements in his field. He does so mainly through informal learning

opportunities because in his profession new technologies evolve much quicker than formal training programs. Frank is also actively exploring opportunities for an encore career, something with more purpose and impact than his current job. He doesn't have specific plans but he is certain that new learning –informal for sure and perhaps even formal – will be a part of both the process of finding the right encore career and the actual transition into his new career.

The notion of engaging in formal learning for an encore career resonated more with the study participants than doing so to negotiate a way out of a current career struggle. The only four people in my study – Helen, Jane, Bill and Dave – who were currently or recently enrolled in formal education did so as a part of their quest for an encore career. Bill and Dave pursued doctorate degrees. Bill's motivation to invest in another degree came from his belief that a doctorate would effectively validate his skills and professional competencies and enable him to land an encore career at the executive level. For Dave, the motivation also came from his encore career plans; he wanted to give back to his field and help cultivate the next generation of fire safety professionals as a higher education faculty. Helen is pursuing a college degree and Jane finished a certificate program in non-profit management. Both women were also deliberate in making this investment as a part of negotiating their encore careers. Helen, like Bill, hopes that the degree gives her more legitimacy in pursuing higher level positions in a field she is passionate about, not that she currently works in. Jane, like Dave, is more interested in adding new competencies that would enable her to be more useful in her current field which she enjoys.

The most active learners seem to be those with professions that demand it, such as teacher, nurse, firefighter, or software engineer. Even more active and perhaps more happy about it are those who see more purpose in their learning, that is, who see its benefits beyond keeping

their professional licenses or expertise up-to-date. The notion of an encore career quest seems to be particularly stimulating of career learning.

Based on the federal and state workforce policies in place, people like Debbie, Carlos, Ella, Helen, Jane, Bill, Frank or Dave would not be able to benefit from the public support for career learning. They would fail the necessary eligibility and suitability tests – they are employed and there is no indication that their current skills set and professional competencies are insufficient to sustain their employment. Yet their ability to maintain their employability and/or to successfully negotiate the transition to a more purposeful encore career is key to their willingness to continue working past the traditional retirement age. As Frank explains:

To get people like me to work longer, we have to experience real value in what we do. Since we have a decreasing amount of time left to live, unless we feel there is more value in our work than in other activities - say fishing, for example - we will see continuing to work as a waste of the scarcest resource we have.

6.3.4.3 Aging professionals' reasons for not engaging in career learning are not adequately addressed by relevant public policies

Nationally, older people who do not engage in career related learning say that they are too busy (31 percent of non-learners), learning is too expensive (25 percent), times or locations of training are inconvenient (15 percent), family demands such as taking care after a parent or spouse take priority (13 percent) or health or similar issues interfere unexpectedly (8 percent) (Cummins et al., 2015). The people I interviewed were justifying their lack of engagement in formal education with very similar reasons – from time constraints to cost. Their biggest hesitations to engage in formal career training, however, came from their inability or unwillingness to make long term commitments. The majority of them were tentative about their future career and learning plans. Their explanations were simple and understandable. Many of the interviewees experienced unplanned turns in their careers or lives (or both) and became more skeptical about long-term

career plans. Significant changes within their families – from a death of a parent, an illness of a spouse, to children moving out, getting married or becoming parents – typically brought about many unknowns and shifted the participants’ focus onto personal rather than career issues. Jane, for example, had plans to go back to school in her early 50s to reinvigorate her career, but unexpected life events not only altered her plans but also discouraged her from future planning:

I just ended up in this job with no intention of staying there full-time. I wanted to get my master's in engineering and get back into the field. But then along the way, my mom passed away, and my dad passed away. About the time I started here, my husband who was 58 at the time, was diagnosed with [terminal diseases]. I had great benefits here, he had to quit work. So I stayed and I don't make a lot of plans.

Helen is one of the people who do not plan to retire. In fact, as a woman of many diverse interests she can see herself pursuing a number of career options. Like Jane though, she is hesitant to make specific plans or commitments.

I guess I don't really know yet what's next for me with respect to career learning. I may continue with a master's. I'm definitely looking for another career after I leave here but I don't have a definite plan. My husband is considerably older than I am; he is ready to retire now. There are many different things on my radar. But again, is my husband going to be with me? How long is he going to be with me? I don't know. If I'm by myself, it might be very much different than what I would do. I think I would be working more. But if it's the two of us, and then we're both in good health that maybe I might just switch to something that is part time or something that is seasonal or something like that.

Both Helen and Jane are professionals with strong career learning track records and willing to engage in the labor market past the traditional retirement age. At this point of their lives, however, they are, prioritizing personal issues over concerns about their career advancement or employability.

The current career learning policies address the commonly known barriers to engaging in career training in several ways. Some of them are more helpful to the aging professionals, other seem to provide more hypothetical than realistic benefits. For example, to increase affordability of career learning, individuals who are low income or lost their career due to involuntary layoffs

can receive tuition subsidy. To optimize this use of public investment in career learning, the current policy framework emphasizes the reusability of prior learning and experience, relying on the competency and career pathway models. It prioritizes public funds going toward the higher tiers of competency models, that is, the most job-specific knowledge and skills, while assuming that people's foundational skills and industry competencies will be highly reusable (for example team work or customer service) or easily adaptable through informal learning or experience (for example, computer literacy). This seems to be a plausible value proposition, given that even in the rapidly evolving knowledge economy, core work competencies and industry sectors are changing at a lower rate than specific occupational skills (Handel, 2003). The tuition subsidy policy, however, is rather restrictive, especially for older workers. While tuition subsidy is an important incentive allowing adults to gain new skills and improve their employment prospects, this perk is offered on a once-in-a-lifetime basis. Individuals who have used it in the past cannot receive it again. Several of the study participants were in this predicament. Ed, in particular, would be open to retooling himself but could not afford it with his income. This once-in-a-lifetime tuition subsidy restriction is especially unsupportive of career learning needs of older workers. Given their age, they may have been in need to occupationally reinvent themselves more than once during their professional lifetime. Combining that with increasingly more volatile labor markets (Powell, 2013) and the need to retain aging professionals at work past their retirement age, the once-in-a-lifetime tuition policy is likely to be a counter-productive intervention in older worker employability issues.

With respect to convenience of training times and locations as a potential barrier to engagement in career learning, the current policies acknowledge and somewhat address the issue. The federal and state regulations broaden the range of organizations that can deliver career

learning using public funds, provided the training is properly credentialed and recognized by the industry, and leads to job placements. The Pennsylvania 2016-2020 WIOA Combined State Plan is actively encouraging any of the 60 plus regional higher education institutions as well as registered apprenticeship programs and skills training provided by employers and community based organizations to apply for a designation of Eligible Training Provider. To receive this designation, the training providers need to demonstrate that they train for high priority occupations – that is, that the credentials they train for are widely recognized and needed in the local labor market. In addition, the training providers need to demonstrate they are successful in terms of training completion and job placement rates. With this policy, the quality and market value of these trainings are assessed and overseen by the state authorities. Individuals receiving training subsidies can select any of these providers based on what's the most convenient for them. Again, judging by the number of people over 55 who engage in formal career learning, this policy may be important but rather inconsequential in stimulating more interest among older workers in career learning.

With respect to competing priorities as a potential barrier to engagement in career learning, the current policies implicitly acknowledge that adults – especially those attending to more complex life demands – may have a number of reasons for not engaging in formal career learning. That career pathway approach to career learning is built on recognition that many adults like Jane or Helen are not able to commit to long-term educational programs. Career pathways put emphasis on assisting individuals to access short-term, stackable credentials that would allow them to advance within their current profession or move to a new occupation that leverages their previous skills (Wolf, 2016). In reality, only three of the 15 study participants – Ed (about 10 years ago), Jane (about two years ago) and Gwen (currently) – opted to engage in

career learning through short-term returns to training and education as envisioned by career pathways policies. They all bought into the idea of a short rather than long term commitment, the manageable cost and the prospect of gaining better employment opportunities. None of them, however, capitalized on the third promise. For Ed, the investments led to new skills and a series of temporary jobs but not stable, well-paid employment opportunities. For Jane, the investments helped her to uncover new interests but it didn't lead to any upward career mobility. Gwen has yet to see any benefits.

Ed believes that his inability to realize better employment prospects from his requalification training is because the training alone, especially since it was a short-term, was not enough to convince employers of his expertise:

The bottom line is even if it's a certificate program, or it's a graduate degree, most IT employers want you to have experience. If I say, "I graduated with this many credits." They'll say, "Have you done this?" "No." "Well, we're kind of looking for somebody who has done it."

In Ed's view, his training aligned with the notion of career pathway in only one out of the three key promises; it reflected authentic demand for the particular skillset in the local labor market but it failed to ensure employers would see the credentials as sufficient without relevant work experience, and more importantly, it did not help Ed to validate his 20+ years of previous professional experience.

Gwen offered another perspective why the notion of quick returns to school for career advancement purposes may not resonate with older workers:

I know the public workforce system offers [tuition subsidy]. A lot of it is geared towards the younger generation or people without advanced education. It seems like they want a quick return to employment or quick entry into employment and then build the skills up. I think that my generation still thinks in the sense of a diploma or a complete course.

Most of the study participants rejected the notion of short-term training for reasons similar to those shared by Ed and Gwen. They are much more open to engaging in degree programs rather than short-term trainings. Ten out of the 15 participants returned to school as working adults for a degree program but only three for a short-term training. They also feel that their decades of career experiences thus far enabled them to learn new skills on their own and do so better or faster than in a formal class room. They believe that knowledge acquisition is a fluid and constant process, and short-term training models are too simple to account for all the intricacies of career-related learning, especially given the volatility of labor markets. Contemporary research on career changes by older professionals echoes the perspectives of my study participants on the limited usefulness of career pathways and competency-based models. Su's (2011) critique of competency based models of career training exemplifies the major arguments against the usefulness of these approaches:

Confrontation with the fast-changing nature of the current times ...indicates that simply thinking of learning as the acquisition of knowledge is insufficient. ... That one may acquire "static" knowledge does not mean that one will be able to apply it and make it "dynamic" and useful in changing times; "to have" knowledge seems to have become irrelevant. (pp. 57-58).

The relevant literature also argues that career pathway and competency models tend to homogenize careers while disregarding the notion of class, gender, age or race despite their profound influence on career trajectories (Barclay et al., 2011; Hostetler, Sweet, & Moen, 2007; S.-J. Kim, 2013; Knipprath & De Rick, 2014; Kirsi LaPointe, 2013; Schoon et al., 2007). Most importantly, these models do not take into account the value of experience and work ethics, or the diversity of education, training and employment arrangements older workers have experienced. Instead, they assume that careers and learning progress in a linear and consistent

manner. However, it is very likely that even two people with the same job in the same company will have very different backgrounds.

6.4 RECOMMENDATIONS AND CONCLUSION

This study demonstrated that the contemporary career learning policies are not effectively supporting aging professionals' needs, interest and willingness to engage in career learning. Therefore, the policies in place are a missed opportunity to strategically contribute to older worker employability and generationally more beneficial economic prosperity

The specific shortcomings of the career learning policies in relation to workforce aging are fourfold. First, the focus on older workers is peripheral rather than strategic. Career learning needs of older worker are not addressed specifically, rather they are assumed to be comparable with the needs of individuals with disabilities, ex-offenders, homeless individuals, youth aged out of the foster care system, individuals with low levels of literacy and individuals facing cultural barriers, among others (Wolf, 2016). This grouping unproductively problematizes older workers based on age. More importantly, it prevents a more tailored approach to career learning needs of aging professionals. Given the size and the importance of older workers in the labor markets, the group (and its career learning needs) should be recognized and addressed more specifically in the public policies. There are useful precedents in the WIOA legislation. For example, the law has specific provisions and more tailored interventions for the emerging workforce (youth of ages 16-24) (Workforce Innovation and Opportunity Act of 2014).

Second, career learning structured along career pathways and competency models does not appear to be either attractive to aging professionals experiencing career struggles or

instrumental in supporting their employability. Older workers undergoing late career shocks tend to be disoriented about the value of their skills and experiences due to their inability to regain employment despite the depth and length of their background (Antonovics, 2012; Cummins et al., 2015; Rothstein et al., 2011). This may prevent them from objectively assessing what kind of career learning may be beneficial in their situation. In addition, the traumatic nature of job and career loss at later age, coupled with perceptions or experiences of ageism, often results in low trust that investment in additional training would yield reasonable ROIs (Duberley, J., Carmichael, & Szmigin, 2014; T. Kim & Hewings, 2013; Ondrich & Falevich, 2013). People in this predicament I interviewed suggested that they would benefit from greater assistance in navigating training options and determining which training would produce the surest returns on their investments, what fields would be less biased toward their backgrounds and age, or what occupations they could be good at. The current policies in place offer a generic guarantee of training quality through the provision of the Eligible Training Provider designation, but no specific assurances that many of the struggling older workers look for. This could be remedied using aging worker-oriented training navigators or concierge-type of assistance. In addition, the once-in-a-lifetime tuition policy should be removed for older workers as it further deters their ability to engage in career learning during involuntary and unexpected career shocks.

Third, career learning policy provisions fail to effectively support those willing to engage. Aging professionals who are employed and interested in pursuing career learning opportunities to boost their employability are not eligible for any public support. The public support is directed to those who already lost their jobs or careers. Research, including my study, suggests that at that point the likelihood for an older worker to both engage in training and regain employability is compromised. Allowing aging professionals to tap into services and resources

necessary to engage in career learning may be a meaningful preventive measure resulting in several benefits – for example, an increase in older worker engagement in career learning, older worker layoff and early retirement reduction, or more strategic focus of training providers and employers on the learning needs of the aging workforce.

Fourth, career learning policies endorsing career pathways and competency models do not reflect the ways older workers prefer to engage in formal education. The data suggest that the largest segment of older workers, about 70 percent, returning to formal education opt for degree programs, not short-term trainings. The policies in place allow unemployed or low income older workers to receive training subsidy, but the assistance is directed to short-term skills training rather than long-term degree programs. The people I interviewed suggested that the three to four decades of their employment history taught them to learn a broad range of skills on their own or on the job. In fact, they often feel there are not many technical skills they can't learn on their own and thus going back to school short-term is not valuable or necessary. They were more motivated to go back to school to earn a degree. Allowing older workers – especially those who have started but not finished their degree programs – to leverage public assistance may again be a more beneficial strategy for older worker layoff and early retirement prevention.

By 2020 the number of local people transitioning to retirement in the Pittsburgh area will surpass the number of young people negotiating their ways into the local market by almost 40,000 (Burning Glass Technologies et al., 2016). Retention of older workers is critical to slow the consequences of rapid aging and to improve the economic prospects of all generations (Denton & Spencer, 2009; Eichhorst et al., 2013; Samorodov, 1999). The traditional policy assumption is that older workers can be incentivized to continue working past retirement age by removing barriers such as mandatory retirement age. Traditional approaches, however, do not

account for older workers' willingness to continue to invest in their careers either by learning new skills or by occupationally reinventing themselves in situations after their previous occupations have become redundant in the local market. The federal and state career learning policies need to be better utilized to strategically contribute to both retaining older workers in the labor market past their traditional retirement age and retaining them in well-paying jobs.

7.0 EPILOGUE

Each of the three studies included in this dissertation has its own set of recommendations and conclusions. What's included in this short chapter are broader suggestions for policymakers, practitioners and researchers concerned with employability of older workers and career learning in later life. In addition, this section offers a few ideas for improvement of this research.

7.1 RECOMMENDATIONS FOR POLICYMAKERS

This research is relevant to policy efforts concerned with the consequences of workforce aging. Combining global and local evidence of the intertwined demographic and labor market shifts, I argue that supporting employability of older workers is not a luxury occurring at the expense of younger workers, rather it is an economic and social security issue essential to successful generational succession.

What complicates effective policy making on older worker employability is that both workforce aging and vanishing employment stability are unprecedented, fast and significant, and therefore not well understood. Thus, the key recommendation that emerged from this research is for policy makers to pay closer attention to these new trends and ways they manifest in local, regional, national and global labor markets. Building a better understanding of these trends can help to use existing instruments of public policy with greater precision or implement new

interventions. For example, understanding well how declining wages contribute to premature retirements for the growing number of older workers who experience involuntary job change can inform minimum wage debates. In turn, minimum wage policies can be strategically used in older worker retention. Similarly, knowing well when, why and how older workers make decisions about retirement can help to more strategically pull policy levers where they are needed most – be it training opportunities, tax incentives or specific workplace protections.

A second important recommendation that emerged from this research is for policy makers to actively create a value proposition for the undecided aging professionals to postpone their transition into retirement. There seem to be a large share of older workers who are open to working past the traditional retirement age but who do not have to. They tend to be more educated, experienced and accustomed to higher wages. To retain these professionals (and their taxable income) will require strategic policy efforts to grow the availability and quality of jobs in aging labor markets while simultaneously combatting persistent age biases in hiring and employment practices.

The third important recommendation that emerged from this research is for policy makers to more strategically support the career learning of older workers. Older workers are engaging less actively than their younger counterparts in formal career learning, perceiving the investments as not justified by their potential returns at this later age. The existing policy provisions for career learning could stimulate older workers' learning better if they align more closely with the specific needs and interests of aging professionals and if they more intentionally support a broader range of career learning models.

7.2 RECOMMENDATIONS FOR PRACTICE

Research, including the findings of the three studies included in this dissertation, suggests that older professionals struggling to earn higher wages or maintain employment do not turn to training and education to solve these issues. They tend to doubt the effectiveness of their investments (financial and emotional) in redefining their professional focus at later stages of their lives. In addition, they struggle to see if and how they could leverage the offerings of educational and training institutions for their particular career learning needs as these programs are rarely customized for aging professionals.

An important recommendation that emerged from this research is the need for educational and training institutions to be more intentional in catering to the learning needs of older workers. That could be achieved by the expansion of tools such as credit for prior academic or experiential learning, or the use of specialized academic advisors. In addition, implementing human-centered design (or similar approaches that drive the understanding of end users' needs) in developing education and training programs could increase aging workers' participation and satisfaction with these programs.

7.3 RECOMMENDATIONS FOR RESEARCH

Debates about an aging workforce are typically future oriented; they tend to focus on estimating the number of people expected to exit the labor force and the effects of mass retirements on employers' capacity to retain economic productivity. The challenge here is that, aside from fairly precise population projections, there is very little we can ascertain about the future career-related

decisions and behaviors of aging workers. Both demographic and employment dynamics are changing too quickly; legacy models created in times when labor markets were predictable have become inaccurate. Past trends in the form of mathematical inputs are no longer sufficient for reliable estimates of future workforce trends (Swinwood, 2013).

Workforce aging is too important and too complex to be dealt with by policies and interventions based only on traditional projections of retirements. The three studies included in this dissertation made a case that a more nuanced understanding of the historical and current contexts in which baby boomers negotiated their careers and related learning thus far could be helpful to imagine (in the absence of reliable prediction models) possible scenarios of their future in labor markets. One important recommendation to emerge from this dissertation is for research to continue generating more insights from aging professionals' narratives of career experiences as a way of building a strong evidentiary basis from which we may be able to construct policy and programmatic interventions affecting employability and career learning of older workers.

Second important recommendation to emerge from this dissertation is for research to continue creating a better understanding of the specific career learning needs and interests of older workers in order to challenge the tacit assumption of current policies that one model of career learning is well suited for the workforce a whole.

In addition, there is a need for better evidence that older workers are not a homogeneous group with similar career needs or career learning patterns. There is also need for better evidence that their lack of participation in formal career learning at later age does not mean they are not interested in it or active as learners. As workers and learners, the baby boomers are often labeled with broad generational attributes. However, the three studies included in this dissertation

illustrated that even in a small sample, there is a lot of nuance and specific context in the career experiences of aging professionals.

7.4 RECOMMENDATIONS FOR IMPROVING THE STUDY

There are no historical examples to guide policy making related to older workers' retention or career learning. This dissertation addressed the need to generate new analyses and insights on workforce aging to aid relevant policy making. It created a framework for examining older worker employability in the context of local employment dynamics. The number of participants in this study allowed creating a meaningful portraiture of key issues embedded in ways aging workers think of their future and make career learning plans. The sample size, however, limited my ability to pay attention to ways gender, race, class or specific life events influence learning and employment decisions by older workers. These more nuanced findings would especially help those concerned with provision of career learning to aging professionals in tailoring outreach and supporting services and customizing programmatic offerings.

In this research, I primarily pointed out the risks created by a lack of strategic focus on the employability of aging workers within the local region. I focused on what is not working. With future research, it may be beneficial to build more intentional evidence of what works in stimulating employment retention or participation in career learning among aging workers. These examples could better guide policy making and interventions to improve employability of older workers.

7.5 CONCLUDING REMARKS

I strongly believe supporting employability of older workers is an important, if not the only, way to ensure successful generational transition. Public investment in older workers will benefit economic and social prospects of the next generations. An important step toward more strategic support of older workers is to pay better attention to ways aging professionals fare in changing labor markets, how they handle late career shocks and how they make decisions about retirement. Hopefully, in doing so we will realize how much potential older workers can benefit the society as a whole and how foolish it is for the rest of us not to protect and maximize their contribution. I agree with Frank, one of the study participants, that:

The next step for the 50+ people is to become the elders. Elders in the sense of traditional society where elders have a sense of time, perspective, things that matter, and have nothing ultimately left to do except die and pass on as much as they can before they die. So to make us stay longer at work, it is not just about making money, it needs to be about doing productive things that matter to other people in the society.

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